### UNITED STATES DISTRICT COURT SOUTHERN DISTRICT OF NEW YORK

NICHOLAS PARKER, on behalf of himself and all others similarly situated,

Civil Action No. 1:17-cv-05353-GBD-HBP

Plaintiff,

v.

UNITED INDUSTRIES CORPORATION,

Defendant.

# DECLARATION OF YITZCHAK KOPEL IN SUPPORT OF PLAINTIFF'S MOTION FOR CLASS CERTIFICATION, APPOINTMENT OF CLASS REPRESENTATIVE, AND APPOINTMENT OF CLASS COUNSEL

#### I, Yitzchak Kopel, declare as follows:

- 1. I am an attorney at law licensed to practice in the State of New York. I am a member of the bar of this Court, and I am an attorney at Bursor & Fisher, P.A., counsel of record for Plaintiff Nicholas Parker ("Plaintiff"). I make this declaration in support of Plaintiff's motion for class certification. I have personal knowledge of the facts set forth in this declaration, and, if called as a witness, could and would competently testify thereto under oath.
- 2. Attached hereto as **Exhibit 1** is a true and correct copy of Bursor & Fisher, P.A.'s firm resume.
- 3. Attached hereto as **Exhibit 2** are true and correct copies of excerpts from the transcript of the deposition of Travis Wood.
- 4. Attached hereto as **Exhibit 3** are true and correct copies of excerpts from the transcript of the deposition of Kathy Cearnal.

- 5. Attached hereto as **Exhibit 4** is a true and correct copy of the World Health Organization's "Guidelines for Efficacy Testing of Mosquito Repellents for Human Skin."
- 6. Attached hereto as **Exhibit 5** are true and correct copies of excerpts from the transcript of the deposition of Steven Schwallie.
- 7. Attached hereto as **Exhibit 6** is a true and correct copy of a May 24, 2010 study titled "Evaluation of Experimental Mosquito Repellents Toward The Southern House Mosquito."
- 8. Attached hereto as **Exhibit 7** is a true and correct copy of an April 4, 2012 study titled "Evaluation of Experimental Mosquito Repellents Toward The Southern House Mosquito."
- 9. Attached hereto as **Exhibit 8** is a true and correct copy of an October 15, 2012 study titled "Evaluation of Experimental Mosquito Repellents Toward The Southern House Mosquito."
- 10. Attached hereto as **Exhibit 9** are true and correct copies of excerpts from the transcript of the deposition of Ronald Cardoza.
- 11. Attached hereto as **Exhibit 10** is a true and correct copy of two Cutter Natural Insect Repellent product labels.
- 12. Attached hereto as **Exhibit 11** is a true and correct copy of Travis Wood's report of nine arm-in-cage ("AIC") tests of Cutter Natural Insect Repellent.
- 13. Attached hereto as **Exhibit 12** is a true and correct copy of a chart of express warranty statutes by state.
- 14. Attached hereto as **Exhibit 13** is a true and correct copy of a chart showing privity requirements by state.

- 15. Attached hereto as **Exhibit 15**<sup>1</sup> is a true and correct copy of a July 2015 Consumer Reports article titled "How to Win the Battle of the Bugs."
- 16. Attached hereto as **Exhibit 16** is a true and correct copy of a page from Consumer Reports online featuring the Cutter Natural Insect Repellent product.
- 17. **Exhibit 23**, a true and correct copy of an excel sheet listing consumer complaints of the Cutter Natural Insect Repellent product, bearing Bates Nos. 100-248, will be submitted to the Court via flash drive.
- 18. Attached hereto as **Exhibit 24** is a true and correct copy of a May 24, 2016 email detailing an ABC News reporter's request to Defendant for a statement regarding the Cutter Natural Insect Repellent consumer complaint allegations.
- 19. I declare under penalty of perjury under the laws of the United States and the State of New York that the foregoing is true and correct. Executed on February 19, 2019 at New York, New York.

Yitzchak Kopel

3

<sup>&</sup>lt;sup>1</sup> When applicable, the Exhibits to the Kopel declaration were given the same Exhibit numbers assigned during the depositions. This explains the gaps in Exhibit numbers.

## BURSOR FISHER

www.bursor.com

2665 SOUTH BAYSHORE DRIVE MIAMI, FL 33133

888 SEVENTH AVENUE NEW YORK, NY 10019 1990 NORTH CALIFORNIA BLVD. WALNUT CREEK, CA 94596

#### FIRM RESUME

With offices in Florida, New York, and California, BURSOR & FISHER lawyers have represented both plaintiffs and defendants in state and federal courts throughout the country.

The lawyers at our firm have an active civil trial practice, having won multi-million dollar verdicts or recoveries in five of five civil jury trials since 2008. Our most recent trial victory came in August 2013 in *Ayyad v. Sprint Spectrum L.P.*, in which Mr. Bursor served as lead trial counsel and won a jury verdict defeating Sprint's \$1.06 billion counterclaim and securing the class's recovery of more than \$275 million in cash and debt relief.

In *Thomas v. Global Vision Products, Inc. (II)*, we obtained a \$50 million jury verdict in favor of a certified class of 150,000 purchasers of the Avacor Hair Regrowth System. The legal trade publication VerdictSearch reported that this was the second largest jury verdict in California in 2009, and the largest in any class action.

The lawyers at our firm have an active class action practice and have won numerous appointments as class counsel to represent millions of class members, including customers of Verizon Wireless, AT&T Wireless, Cingular Wireless, Sprint, T-Mobile, General Electric, Haier America, and Michaels Stores as well as purchasers of Avacor<sup>TM</sup>, Xenadrine<sup>TM</sup>, and Sensa<sup>TM</sup> products. Since 2014, our lawyers have certified seven consumer classes pursuant to contested class certification motions (*see Ebin, Forcellati, In re EZ Seed Litig., Dei Rossi, Melgar, Hart, Dzielak, infra*). Since December 2010, Bursor & Fisher lawyers have been court-appointed Class Counsel or Interim Class Counsel in:

- i. *O'Brien v. LG Electronics USA, Inc.* (D.N.J. Dec. 16, 2010) to represent a certified nationwide class of purchasers of LG French-door refrigerators,
- ii. Ramundo v. Michaels Stores, Inc. (N.D. Ill. June 8, 2011) to represent a certified nationwide class of consumers who made in-store purchases at Michaels Stores using a debit or credit card and had their private financial information stolen as a result,
- iii. *In re Haier Freezer Consumer Litig.* (N.D. Cal. Aug. 17, 2011) to represent a certified class of purchasers of mislabeled freezers from Haier America Trading, LLC,
- iv. *Loreto v. Coast Cutlery Co.* (D.N.J. Sep. 8, 2011) to represent a certified nationwide class of purchasers of knives or tools made by Coast Cutlery,
- v. *Rodriguez v. CitiMortgage, Inc.* (S.D.N.Y. Nov. 14, 2011) to represent a certified nationwide class of military personnel against CitiMortgage for illegal foreclosures,

- vi. Avram v. Samsung Electronics America, Inc., et al. (D.N.J. Jan. 3, 2012), to represent a proposed nationwide class of purchasers of mislabeled refrigerators from Samsung Electronics America, Inc. and Lowe's Companies, Inc.,
- vii. Rossi v. The Procter & Gamble Co. (D.N.J. Jan. 31, 2012), to represent a certified nationwide class of purchasers of Crest Sensitivity Treatment & Protection toothpaste,
- viii. *Dzielak v. Whirlpool Corp. et al.* (D.N.J. Feb. 21, 2012), to represent a proposed nationwide class of purchasers of mislabeled Maytag Centennial washing machines from Whirlpool Corp., Sears, and other retailers,
- ix. *In re Sensa Weight Loss Litig.* (N.D. Cal. Mar. 2, 2012), to represent a certified nationwide class of purchasers of Sensa weight loss products,
- x. *In re Sinus Buster Products Consumer Litig.* (E.D.N.Y. Dec. 17, 2012) to represent a certified nationwide class of purchasers of Sinus Buster products,
- xi. Scott v. JPMorgan Chase & Co., et al. (S.D.N.Y. May 30, 2013) to represent a proposed nationwide class of Chase customers who were allegedly unilaterally enrolled into Chase's Overdraft Protection service and charged unauthorized fees,
- xii. *Podobedov v. Living Essentials, LLC* (C.D. Cal. Nov. 8, 2013) to represent a proposed nationwide class of purchasers of 5-hour Energy products,
- xiii. Ebin v. Kangadis Food Inc. (S.D.N.Y. Feb. 25, 2014) to represent a certified nationwide class of purchasers of Capatriti 100% Pure Olive Oil,
- xiv. Forcellati v. Hyland's, Inc. (C.D. Cal. Apr. 9, 2014) to represent a certified nationwide class of purchasers of children's homeopathic cold and flu remedies,
- xv. Ebin v. Kangadis Family Management LLC, et al. (S.D.N.Y. Sept. 18, 2014) to represent a certified nationwide class of purchasers of Capatriti 100% Pure Olive Oil,
- xvi. *In re Scotts EZ Seed Litig.* (S.D.N.Y. Jan. 26, 2015), to represent a certified class of purchasers of Scotts Turf Builder EZ Seed,
- xvii. *Dei Rossi v. Whirlpool Corp.*, *et al.* (E.D. Cal. Apr. 28, 2015), to represent a certified class of purchasers of mislabeled KitchenAid refrigerators from Whirlpool Corp., Best Buy, and other retailers,
- xviii. *Hendricks v. StarKist Co.* (N.D. Cal. July 23, 2015) to represent a certified nationwide class of purchasers of StarKist tuna products,
- xix. *In re NVIDIA GTX 970 Graphics Card Litig.* (N.D. Cal. May 8, 2015), to represent a proposed nationwide class of purchasers of NVIDIA GTX 970 graphics cards,
- xx. *Melgar v. Zicam LLC, et al.* (E.D. Cal. March 30, 2016) to represent a certified ten-jurisdiction class of purchasers of Zicam Pre-Cold products,
- xxi. *In re Welspun Litigation* (S.D.N.Y. January 26, 2017), to represent a proposed nationwide class of purchasers of Welspun Egyptian cotton bedding products,
- xxii. Retta v. Millennium Products, Inc. (C.D. Cal. January 31, 2017), to represent a certified nationwide class of Millennium kombucha beverages,

- xxiii. Moeller v. American Media, Inc., (E.D. Mich. June 8, 2017) to represent a class of magazine subscribers under the Michigan Preservation of Personal Privacy Act,
- *xxiv.* Hart v. BHH, LLC (S.D.N.Y. July 7, 2017) to represent a nationwide class of purchasers of Bell & Howell ultrasonic pest repellers,
- xxv. McMillion v. Rash Curtis & Associates (N.D. Cal. September 6, 2017), to represent a certified nationwide class of individuals who received calls from Rash Curtis & Associates,
- xxvi. Lucero v. Solarcity Corp. (N.D. Cal. September 15, 2017), to represent a certified nationwide class of individuals who received telemarketing calls from Solarcity Corp.,
- xxvii. Taylor v. Trusted Media Brands, Inc. (S.D.N.Y. Oct. 17, 2017) to represent a class of magazine subscribers under the Michigan Preservation of Personal Privacy Act,
- *xxviii.* Gasser v. Kiss My Face, LLC (N.D. Cal. Oct. 23, 2017) to represent a proposed nationwide class of purchasers of cosmetic products,
- xxix. Gastelum v. Frontier California Inc. (S.F. Superior Court February 21, 2018), to represent a certified California class of Frontier landline telephone customers who were charged late fees,
- *xxx.* Williams v. Facebook, Inc. (N.D. Cal. June 26, 2018) to represent a proposed nationwide class of Facebook users for alleged privacy violations,
- xxxi. Ruppel v. Consumers Union of United States, Inc. (S.D.N.Y. July 27, 2018) to represent a class of magazine subscribers under the Michigan Preservation of Personal Privacy Act,
- *xxxii.* Bayol v. Health-Ade (N.D. Cal. August 23, 2018), to represent a proposed nationwide class of Health-Ade kombucha beverages,
- *xxxiii.* West v. California Service Bureau (N.D. Cal. September 12, 2018), to represent a certified nationwide class of individuals who received calls from California Service Bureau, and
- *xxxiv.* Gregorio v. Premier Nutrition Corporation (S.D.N.Y. Sept. 14, 2018) to represent a nationwide class of purchasers of protein shake products.

#### SCOTT A. BURSOR

Mr. Bursor has an active civil trial practice, having won multi-million verdicts or recoveries in five of five civil jury trials since 2008. Mr. Bursor's most recent victory came in August 2013 in *Ayyad v. Sprint Spectrum L.P.*, in which he served as lead trial counsel and won a jury verdict defeating Sprint's \$1.06 billion counterclaim and securing the class's recovery of more than \$275 million in cash and debt relief.

In *Thomas v. Global Vision Products, Inc.* (2009), the jury returned a \$50 million verdict in favor of the plaintiff and class represented by Mr. Bursor. The legal trade publication VerdictSearch reported that this was the second largest jury verdict in California in 2009.

Class actions are rarely tried to verdict. Other than Mr. Bursor and his partner Mr. Fisher, we know of no lawyer that has tried more than one class action to a jury. Mr. Bursor's

perfect record of five wins in five class action jury trials, with recoveries ranging from \$21 million to \$299 million, is unmatched by any other lawyer. Each of these victories was hard-fought against top trial lawyers from the biggest law firms in the United States.

Mr. Bursor graduated from the University of Texas Law School in 1996. He served as Articles Editor of the Texas Law Review, and was a member of the Board of Advocates and Order of the Coif. Prior to starting his own practice, Mr. Bursor was a litigation associate with Cravath, Swaine & Moore (1996-2000) and Chadbourne & Parke LLP (2001), where he represented large telecommunications, pharmaceutical, and technology companies in commercial litigation.

Mr. Bursor is a member of the state bars of New York, Florida, and California, as well as the bars of the United States Court of Appeals for the Second Circuit, United States Court of Appeals for the Fourth Circuit, United States Court of Appeals for the Sixth Circuit, United States Court of Appeals for the Ninth Circuit, United States Court of Appeals for the Ninth Circuit, United States Court of Appeals for the Eleventh Circuit, United States District Courts for the Southern and Eastern Districts of New York, United States District Courts for the Northern, Central, Southern and Eastern Districts of California, the United States District Courts for the Southern and Middle Districts of Florida, and the United States District Court for the Eastern District of Michigan.

#### Representative Cases

Mr. Bursor was appointed lead or co-lead class counsel to the largest, 2nd largest, and 3rd largest classes ever certified. Mr. Bursor has represented classes including more than 160 million class members, roughly 1 of every 2 Americans. Listed below are recent cases that are representative of Mr. Bursor's practice:

Mr. Bursor negotiated and obtained court-approval for two landmark settlements in *Nguyen v. Verizon Wireless* and *Zill v. Sprint Spectrum* (the largest and 2nd largest classes ever certified). These settlements required Verizon and Sprint to open their wireless networks to third-party devices and applications. These settlements are believed to be the most significant legal development affecting the telecommunications industry since 1968, when the FCC's Carterfone decision similarly opened up AT&T's wireline telephone network.

Mr. Bursor was the lead trial lawyer in *Ayyad v. Sprint Spectrum, L.P.* representing a class of approximately 2 million California consumers who were charged an early termination fee under a Sprint cellphone contract, asserting claims that such fees were unlawful liquidated damages under the California Civil Code, as well as other statutory and common law claims. After a five-week combined bench-and-jury trial, the jury returned a verdict in June 2008 and the Court issued a Statement of Decision in December 2008 awarding the plaintiffs \$299 million in cash and debt cancellation. Mr. Bursor served as lead trial counsel for this class again in 2013 during a month-long jury trial in which Sprint asserted a \$1.06 billion counterclaim against the class. Mr. Bursor secured a verdict awarding Sprint only \$18.4 million, the exact amount calculated by the class's damages expert. This award was less than 2% of the damages Sprint sought, less than 6% of the amount of the illegal termination fees Sprint charged to class members, and ensured that the class would recover in excess of \$275 million.

Mr. Bursor was the lead trial lawyer in *White v. Cellco Partnership d/b/a Verizon Wireless* representing a class of approximately 1.4 million California consumers who were charged an early termination fee under a Verizon cellphone contract, asserting claims that such fees were unlawful liquidated damages under the California Civil Code, as well as other statutory and common law claims. In July 2008, after Mr. Bursor presented plaintiffs' case-in-chief, rested, then cross-examined Verizon's principal trial witness, Verizon agreed to settle the case for a \$21 million cash payment and an injunction restricting Verizon's ability to impose early termination fees in future subscriber agreements.

Mr. Bursor was the lead trial lawyer in *Thomas v. Global Visions Products Inc.* Mr. Bursor represented a class of approximately 150,000 California consumers who had purchased the Avacor® hair regrowth system. In January 2008, after a four-week combined bench-and-jury trial. Mr. Bursor obtained a \$37 million verdict for the class, which the Court later increased to \$40 million.

Mr. Bursor was appointed class counsel and was elected chair of the Official Creditors' Committee in *In re Nutraquest Inc.*, a Chapter 11 bankruptcy case before Chief Judge Garrett E. Brown, Jr. (D.N.J.) involving 390 ephedra-related personal injury and/or wrongful death claims, two consumer class actions, four enforcement actions by governmental agencies, and multiple adversary proceedings related to the Chapter 11 case. Working closely with counsel for all parties and with two mediators, Judge Nicholas Politan (Ret.) and Judge Marina Corodemus (Ret.), the committee chaired by Mr. Bursor was able to settle or otherwise resolve every claim and reach a fully consensual Chapter 11 plan of reorganization, which Chief Judge Brown approved in late 2006. This settlement included a \$12.8 million recovery to a nationwide class of consumers who alleged they were defrauded in connection with the purchase of Xenadrine® dietary supplement products.

Mr. Bursor was the lead trial lawyer in *In re: Pacific Bell Late Fee Litigation*. After filing the first class action challenging Pac Bell's late fees in April 2010, winning a contested motion to certify a statewide California class in January 2012, and defeating Pac Bell's motion for summary judgment in February 2013, Mr. Bursor obtained final approval of the \$38 million class settlement. The settlement, which Mr. Bursor negotiated the night before opening statements were scheduled to commence, provides for a \$20 million cash payment to provide refunds to California customers who paid late fees on their Pac Bell wireline telephone accounts, and includes an injunction that will reduce late fee charges by \$18.6 million over 28 months.

#### L. TIMOTHY FISHER

L. Timothy Fisher has an active practice in consumer class actions and complex business litigation and has also successfully handled a large number of civil appeals.

Mr. Fisher has been actively involved in numerous cases that resulted in multi-million dollar recoveries for consumers and investors. Mr. Fisher has handled cases involving a wide range of issues including nutritional labeling, health care, telecommunications, corporate governance, unfair business practices and consumer fraud. With his partner Scott A. Bursor, Mr. Fisher has tried four class action jury trials, all of which produced successful results. In *Thomas* 

v. Global Vision Products, Mr. Fisher obtained a jury award of \$50,024,611 — the largest class action award in California in 2009 and the second-largest jury award of any kind.

Mr. Fisher was admitted to the State Bar of California in 1997. He is also a member of the bars of the United States Court of Appeals for the Ninth Circuit and the United States District Courts for the Northern, Central, Southern and Eastern Districts of California. Mr. Fisher taught appellate advocacy at John F. Kennedy University School of Law in 2003 and 2004. In 2010, he contributed jury instructions, a verdict form and comments to the consumer protection chapter of Justice Elizabeth A. Baron's California Civil Jury Instruction Companion Handbook (West 2010). In January 2014, Chief Judge Claudia Wilken of the United States District Court for the Northern District of California appointed Mr. Fisher to a four-year term as a member of the Court's Standing Committee on Professional Conduct.

Mr. Fisher received his Juris Doctorate from Boalt Hall at the University of California at Berkeley in 1997. While in law school, he was an active member of the Moot Court Board and participated in moot court competitions throughout the United States. In 1994, Mr. Fisher received an award for Best Oral Argument in the first-year moot court competition.

In 1992, Mr. Fisher graduated with highest honors from the University of California at Berkeley and received a degree in political science. Prior to graduation, he authored an honors thesis for Professor Bruce Cain entitled "The Role of Minorities on the Los Angeles City Council." He is also a member of Phi Beta Kappa.

#### Representative Cases

Thomas v. Global Vision Products, Inc. (Alameda County Superior Court). Mr. Fisher litigated claims against Global Vision Products, Inc. and other individuals in connection with the sale and marketing of a purported hair loss remedy known as Avacor. The case lasted more than seven years and involved two trials. The first trial resulted in a verdict for plaintiff and the class in the amount of \$40,000,000. The second trial resulted in a jury verdict of \$50,024,611, which led to a \$30 million settlement for the class.

In re Cellphone Termination Fee Cases - Handset Locking Actions (Alameda County Superior Court). Mr. Fisher actively worked on five coordinated cases challenging the secret locking of cell phone handsets by major wireless carriers to prevent consumers from activating them on competitive carriers' systems. Settlements have been approved in all five cases on terms that require the cell phone carriers to disclose their handset locks to consumers and to provide unlocking codes nationwide on reasonable terms and conditions. The settlements fundamentally changed the landscape for cell phone consumers regarding the locking and unlocking of cell phone handsets.

In re Cellphone Termination Fee Cases - Early Termination Fee Cases (Alameda County Superior Court and Federal Communications Commission). In separate cases that are a part of the same coordinated litigation as the Handset Locking Actions, Mr. Fisher actively worked on claims challenging the validity under California law of early termination fees imposed by national cell phone carriers. In one of those cases, against Verizon Wireless, a nationwide settlement was reached after three weeks of trial in the amount of \$21 million. In a second case,

which was tried to verdict, the Court held after trial that the \$73 million of flat early termination fees that Sprint had collected from California consumers over an eight-year period were void and unenforceable.

#### **Selected Published Decisions**

*Melgar v. Zicam LLC*, 2016 WL 1267870 (E.D. Cal. Mar. 30, 2016) (certifying 10-jurisdiction class of purchasers of cold remedies, denying motion for summary judgment, and denying motions to exclude plaintiff's expert witnesses).

Salazar v. Honest Tea, Inc., 2015 WL 7017050 (E.D. Cal. Nov. 12. 2015) (denying motion for summary judgment).

*Dei Rossi v. Whirlpool Corp.*, 2015 WL 1932484 (E.D. Cal. Apr. 27, 2015) (certifying California class of purchasers of refrigerators that were mislabeled as Energy Star qualified).

*Bayol v. Zipcar, Inc.*, 78 F.Supp.3d 1252 (N.D. Cal. 2015) (denying motion to dismiss claims alleging unlawful late fees under California Civil Code § 1671).

Forcellati v. Hyland's, Inc., 2015 WL 9685557 (C.D. Cal. Jan. 12, 2015) (denying motion for summary judgment in case alleging false advertising of homeopathic cold and flu remedies for children).

*Bayol v. Zipcar, Inc.*, 2014 WL 4793935 (N.D. Cal. Sept. 25, 2014) (denying motion to transfer venue pursuant to a forum selection clause).

Forcellati v. Hyland's Inc., 2014 WL 1410264 (C.D. Cal. Apr. 9, 2014) (certifying nationwide class of purchasers of homeopathic cold and flu remedies for children).

*Hendricks v. StarKist Co.*, 30 F.Supp.3d 917 (N.D. Cal. 2014) (denying motion to dismiss in case alleging underfilling of 5-ounce cans of tuna).

*Dei Rossi* v. Whirlpool Corp., 2013 WL 5781673 (E.D. Cal. October 25, 2013) (denying motion to dismiss in case alleging that certain KitchenAid refrigerators were misrepresented as Energy Star qualified).

Forcellati v. Hyland's Inc., 876 F.Supp.2d 1155 (C.D. Cal. 2012) (denying motion to dismiss complaint alleging false advertising regarding homeopathic cold and flu remedies for children).

*Clerkin v. MyLife.com*, 2011 WL 3809912 (N.D. Cal. August 29, 2011) (denying defendants' motion to dismiss in case alleging false and misleading advertising by a social networking company).

*In re Cellphone Termination Fee Cases*, 186 Cal.App.4th 1380 (2010) (affirming order approving \$21 million class action settlement).

*Gatton v. T-Mobile USA*, *Inc.*, 152 Cal.App.4th 571 (2007) (affirming order denying motion to compel arbitration).

#### **Selected Class Settlements**

Gastelum v. Frontier California Inc. (San Francisco Superior Court) - \$10.9 million class action settlement of claims alleging that a residential landline service provider charged unlawful late fees.

Retta v. Millennium Products, Inc. (Central District of California) - \$8.25 million settlement to

resolve claims of bottled tea purchasers for alleged false advertising.

Forcellati v. Hyland's (Central District of California) – nationwide class action settlement providing full refunds to purchasers of homeopathic cold and flu remedies for children.

*Dei Rossi v. Whirlpool* (Eastern District of California) – class action settlement providing \$55 cash payments to purchasers of certain KitchenAid refrigerators that allegedly mislabeled as Energy Star qualified.

*In Re NVIDIA GTX 970 Graphics Chip Litigation* (Northern District of California) - \$4.5 million class action settlement of claims alleging that a computer graphics card was sold with false and misleading representations concerning its specifications and performance.

*Hendricks v. StarKist Co.* (Northern District of California) – \$12 million class action settlement of claims alleging that 5-ounce cans of tuna were underfilled.

*In re Zakskorn v. American Honda Motor Co.* Honda (Eastern District of California) – nationwide settlement providing for brake pad replacement and reimbursement of out-of-pocket expenses in case alleging defective brake pads on Honda Civic vehicles manufactured between 2006 and 2011.

Correa v. Sensa Products, LLC (Los Angeles Superior Court) - \$9 million settlement on behalf of purchasers of the Sensa weight loss product.

*In re Pacific Bell Late Fee Litigation* (Contra Costa County Superior Court) - \$38.6 million settlement on behalf of Pac Bell customers who paid an allegedly unlawful late payment charge.

*In re Haier Freezer Consumer Litigation* (Northern District of California) - \$4 million settlement, which provided for cash payments of between \$50 and \$325.80 to class members who purchased the Haier HNCM070E chest freezer.

Thomas v. Global Vision Products, Inc. (Alameda County Superior Court) - \$30 million settlement on behalf of a class of purchasers of a hair loss remedy.

Guyette v. Viacom, Inc. (Alameda County Superior Court) - \$13 million settlement for a class of cable television subscribers who alleged that the defendant had improperly failed to share certain tax refunds with its subscribers.

#### **JOSEPH I. MARCHESE**

Joseph I. Marchese is a Partner with Bursor & Fisher, P.A. Joe focuses his practice on consumer class actions, employment law disputes, and commercial litigation. He has represented corporate and individual clients in a wide array of civil litigation, and has substantial trial and appellate experience.

In 2015, Joe was defense trial counsel for a law firm and several of its partners in a sexual harassment case brought by a former associate of that firm. The plaintiff's complaint sought \$22 million in compensatory and punitive damages. After a 3-week trial in federal court in New York, the jury returned a verdict of not liable for the federal and state law claims. During the trial, the judge also granted defendants' motion for judgment as a matter of law on the plaintiff's claims for retaliation and defamation. The jury found liability solely under New York City's human rights law, awarding only \$140,000 in damages.

Joe has significant experience in multidistrict litigation proceedings. Most recently, he served on the Plaintiffs' Executive Committee in In Re: Blue Buffalo Company, Ltd. Marketing And Sales Practices Litigation, MDL No. 2562, which resulted in a \$32 million consumer class settlement.

Joe also has substantial experience in successfully litigating and resolving consumer class actions involving claims of mislabeling, false or misleading advertising, privacy violations, and data breach claims.

Joe is admitted to the State Bar of New York and is a member of the bars of the United States District Courts for the Southern District of New York, the Eastern District of New York, and the Eastern District of Michigan, as well as the United States Court of Appeals for the Second Circuit.

Joe graduated from Boston University School of Law in 2002 where he was a member of The Public Interest Law Journal. In 1998, Joe graduated with honors from Bucknell University.

#### **Selected Published Decisions:**

Boelter v. Hearst Communications, Inc., 269 F. Supp. 3d 172 (S.D.N.Y. Sept. 7, 2017), granting plaintiff's motion for partial summary judgment on state privacy law violations in putative class action.

*Boelter v. Hearst Communications, Inc.*, 192 F. Supp. 3d 427 (S.D.N.Y. June 17, 2016), denying publisher's motion to dismiss its subscriber's allegations of state privacy law violations in putative class action.

Boelter v. Advance Magazine Publishers Inc., 210 F. Supp. 3d 579 (S.D.N.Y. 2016), denying publisher's motion to dismiss its subscriber's allegations of state privacy law violations in putative class action.

*In re Scotts EZ Seed Litigation*, 304 F.R.D. 397 (S.D.N.Y. 2015), granting class certification of false advertising and other claims brought by New York and California purchasers of grass seed product.

*Marchuk v. Faruqi & Faruqi, LLP, et al.*, 100 F. Supp. 3d 302 (S.D.N.Y. 2015), granting individual and law firm defendants' motion for judgment as a matter of law on plaintiff's claims for retaliation and defamation, as well as for all claims against law firm partners, Nadeem and Lubna Faruqi.

Ebin v. Kangadis Food Inc., 297 F.R.D. 561 (S.D.N.Y. 2014), granting nationwide class certification of false advertising and other claims brought by purchasers of purported "100% Pure Olive Oil" product.

Ebin v. Kangadis Food Inc., 2014 WL 737878 (S.D.N.Y. Feb. 25, 2014), denying distributor's motion for summary judgment against nationwide class of purchasers of purported "100% Pure Olive Oil" product.

*In re Michaels Stores Pin Pad Litigation*, 830 F. Supp. 2d 518 (N.D. Ill. 2011), denying retailer's motion to dismiss its customers' state law consumer protection and privacy claims in data breach putative class action.

#### **Selected Class Settlements:**

Ruppel v. Consumers Union of United States, Inc., Case No. 16-cv-02444-KMK (S.D.N.Y. 2018) – final approval granted for \$16.375 million class settlement to resolve claims of magazine subscribers for alleged statutory privacy violations.

*Taylor v. Trusted Media Brands, Inc.*, Case No. 16-cv-01812-KMK (S.D.N.Y. 2018) – final approval granted for \$8.225 million class settlement to resolve claims of magazine subscribers for alleged statutory privacy violations.

*Moeller v. American Media, Inc.*, Case No. 16-cv-11367-JEL (E.D. Mich. 2017) – final approval granted for \$7.6 million class settlement to resolve claims of magazine subscribers for alleged statutory privacy violations.

*In Re: Blue Buffalo Marketing And Sales Practices Litigation*, Case No. 14-MD-2562-RWS (E.D. Mo. 2016) – final approval granted for \$32 million class settlement to resolve claims of pet owners for alleged false advertising of pet foods.

Rodriguez v. Citimortgage, Inc., Case No. 11-cv-4718-PGG (S.D.N.Y. 2015) – final approval granted for \$38 million class settlement to resolve claims of military servicemembers for alleged foreclosure violations of the Servicemembers Civil Relief Act, where each class member was entitled to \$116,785 plus lost equity in the foreclosed property and interest thereon.

O'Brien v. LG Electronics USA, Inc., et al., Case No. 10-cv-3733-DMC (D.N.J. 2011) – final approval granted for \$23 million class settlement to resolve claims of Energy Star refrigerator purchasers for alleged false advertising of the appliances' Energy Star qualification.

#### **JOSHUA D. ARISOHN**

Joshua D. Arisohn is a Partner with Bursor & Fisher, P.A. Josh has litigated precedent-setting cases in the areas of consumer class actions and terrorism. He participated in the first ever trial to take place under the Anti-Terrorism Act, a statute that affords U.S. citizens the right to assert federal claims for injuries arising out of acts of international terrorism. Josh's practice continues to focus on terrorism-related matters as well as class actions.

Josh is admitted to the State Bar of New York and is a member of the bars of the United States District Courts for the Southern District of New York and the Eastern District of New York.

Josh previously practiced at Dewey & LeBoeuf LLP and DLA Piper LLP. He graduated from Columbia University School of Law in 2006, where he was a Harlan Fiske Stone Scholar, and received his B.A. from Cornell University in 2002. Josh has been honored as a 2015 and 2016 Super Lawyer Rising Star.

#### Selected Published Decisions:

*Morris v. SolarCity Corp.*, 2016 WL 1359378 (N.D. Cal. Apr. 4, 2016), denying defendant's motion to dismiss claims that solar company illegally called consumers using an artificial or prerecorded voice and an automatic telephone dialing system.

Boelter v. Hearst Commc'ns, Inc., 192 F. Supp. 3d 427 (S.D.N.Y. 2016), denying defendant's motion to dismiss and finding that the Michigan Video Rental Privacy Act does not violate the First Amendment.

Edwards v. Oportun, Inc., 193 F. Supp. 3d 1096 (N.D. Cal. 2016), denying defendant's motion dismiss and rejecting its argument that providing a class representative with a cashier's check for his individual damages mooted his individual and class claims.

#### **Selected Class Settlements:**

*Morris v. SolarCity Corp.*, Case No. 3:15-cv-05107-RS (N.D. Cal.) - final approval granted for \$15 million class settlement to resolve claims under the Telephone Consumer Protection Act ("TCPA"), 47 U.S.C. § 227 et seq.

#### **JOEL D. SMITH**

Joel D. Smith is a Partner with Bursor & Fisher, P.A. Joel's practice focuses on consumer class actions and complex litigation. He has substantial experience in trial and appellate courts across the nation.

Prior to joining Bursor & Fisher, Joel was a litigator at Crowell & Moring, where he represented Fortune 500 companies, privately-held businesses, and public entities in commercial litigation and nationwide class actions. While at Crowell & Moring, Joel litigated some of the firm's most high-profile matters, including several class actions alleging deceptive sales practices with respect to Apple iPhones and iPads, and a class action seeking to hold U.S. energy companies accountable for global warming.

Joel received both his undergraduate and law degrees from the University of California at Berkeley. While at Berkeley School of Law, he was a member of the California Law Review, received several academic honors, externed for the California Attorney General's office and published an article on climate change policy and litigation.

Joel is admitted to the State Bar of California, as well as the United States Courts of Appeals for the Second, Third and Ninth Circuits, and the Northern, Central, Southern and Eastern Districts of California.

#### **Selected Published Decisions:**

*Revitch v. DIRECTV, LLC*, 2018 WL 4030550 (N.D. Cal. Aug. 23, 2018), denying motion to compel arbitration in putative class action alleging unlawful calls under the Telephone Consumer Protection Act.

*Mbazomo v. Etourandtravel, Inc.*, 2016 WL 7165693 (E.D. Cal. Dec. 8, 2016), denying motion to dismiss in putative class action alleging unlawful calls under the Telephone Consumer Protection Act.

*Brenner v. Procter & Gamble, Co.*, 2016 WL 8192946 (C.D. Cal. Oct. 20, 2016), denying motion to dismiss in putative class action alleging false and misleading labeling on Pampers baby wipes.

#### **Selected Class Settlements:**

*Morris v. SolarCity Corp.*, Case No. 3:15-cv-05107-RS (N.D. Cal.) - final approval granted for \$15 million class settlement to resolve claims under the Telephone Consumer Protection Act ("TCPA"), 47 U.S.C. § 227 et seq.

#### **SARAH N. WESTCOT**

Sarah N. Westcot is an Associate with Bursor & Fisher, P.A. Ms. Westcot focuses her practice on complex business litigation and consumer class actions. Prior to joining Bursor & Fisher, Ms. Westcot litigated civil actions as an attorney with Bay Area Legal Aid in San Jose, CA.

Ms. Westcot served as trial counsel with Mr. Bursor in *Ayyad v. Sprint Spectrum L.P.*, and helped to win a jury verdict defeating Sprint's \$1.06 billion counterclaim and securing the class's recovery of more than \$275 million in cash and debt relief.

Ms. Westcot is admitted to the State Bar of California and is a member of the bars of the United States District Courts for the Northern, Central, Southern, and Eastern Districts of California.

Ms. Westcot received her Juris Doctor from the University of Notre Dame Law School in 2009. During her third year of law school, Ms. Westcot worked as a law clerk with the local public defender's office representing juvenile clients in criminal hearings. She graduated with honors from the University of Florida in 2005.

#### **NEAL J. DECKANT**

Neal J. Deckant is a Partner with Bursor & Fisher, P.A. Neal focuses his practice on complex business litigation, consumer class actions, and employment law disputes. Prior to joining Bursor & Fisher, Neal counseled low-income homeowners facing foreclosure in East Boston.

In 2015, Neal was defense trial counsel for a law firm and several of its partners in a sexual harassment case brought by a former associate of that firm. The plaintiff's complaint sought \$22 million in compensatory and punitive damages. After a 3-week trial in federal court in New York, the jury returned a verdict of not liable for the federal and state law claims. During the trial, the judge also granted defendants' motion for judgment as a matter of law on the

plaintiff's claims for retaliation and defamation. The jury found liability solely under New York City's human rights law, awarding only \$140,000 in damages.

Neal is admitted to the State Bar of New York and is a member of the bars of the United States District Court for the Southern District of New York, the United States District Court for the Eastern District of New York, and the bars of the United States Courts of Appeals for the Second and Ninth Circuits.

Neal received his Juris Doctor from Boston University School of Law in 2011, graduating cum laude with two Dean's Awards. During law school, Neal served as a Senior Articles Editor for the Review of Banking and Financial Law, where he authored two published articles about securitization reforms, both of which were cited by the New York Court of Appeals, the highest court in the state. Neal was also awarded Best Oral Argument in his moot court section, and he served as a Research Assistant for his Securities Regulation professor. Neal has also been honored as a 2014, 2015, 2016, and 2017 Super Lawyers Rising Star. In 2007, Neal graduated with Honors from Brown University with a dual major in East Asian Studies and Philosophy.

#### **Selected Published Decisions:**

*Marchuk v. Faruqi & Faruqi, LLP*, et al., 100 F. Supp. 3d 302 (S.D.N.Y. 2015), granting individual and law firm defendants' motion for judgment as a matter of law on plaintiff's claims for retaliation and defamation, as well as for all claims against law firm partners, Nadeem and Lubna Faruqi.

Ebin v. Kangadis Food Inc., 297 F.R.D. 561 (S.D.N.Y. 2014), granting nationwide class certification of false advertising and other claims brought by purchasers of purported "100% Pure Olive Oil" product.

Ebin v. Kangadis Food Inc., 2014 WL 737878 (S.D.N.Y. Feb. 25, 2014), denying distributor's motion for summary judgment against nationwide class of purchasers of purported "100% Pure Olive Oil" product.

#### Selected Class Settlements:

*In Re NVIDIA GTX 970 Graphics Chip Litigation*, Case No. 15-cv-00760-PJH (N.D. Cal. Dec. 7, 2016) – final approval granted for \$4.5 million class action settlement to resolve claims that a computer graphics card was allegedly sold with false and misleading representations concerning its specifications and performance.

*Hendricks v. StarKist Co.*, 2016 WL 5462423 (N.D. Cal. Sept. 29, 2016) – final approval granted for \$12 million class action settlement to resolve claims that 5-ounce cans of tuna were allegedly underfilled.

*In re: Kangadis Food Inc.*, Case No. 8-14-72649 (Bankr. E.D.N.Y. Dec. 17, 2014) – class action claims resolved for \$2 million as part of a Chapter 11 plan of reorganization, after a corporate

defendant filed for bankruptcy, following claims that its olive oil was allegedly sold with false and misleading representations.

#### Selected Publications:

Neal Deckant, X. Reforms of Collateralized Debt Obligations: Enforcement, Accounting and Regulatory Proposals, 29 Rev. Banking & Fin. L. 79 (2009) (cited in Quadrant Structured Products Co., Ltd. v. Vertin, 16 N.E.3d 1165, 1169 n.8 (N.Y. 2014)).

Neal Deckant, *Criticisms of Collateralized Debt Obligations in the Wake of the Goldman Sachs Scandal*, 30 Rev. Banking & Fin. L. 407 (2010) (cited in *Quadrant Structured Products Co., Ltd. v. Vertin*, 16 N.E.3d 1165, 1169 n.8 (N.Y. 2014); *Lyon Village Venetia, LLC v. CSE Mortgage LLC*, 2016 WL 476694, at \*1 n.1 (Md. Ct. Spec. App. Feb. 4, 2016); Ivan Ascher, Portfolio Society: On the Capitalist Mode of Prediction, at 141, 153, 175 (Zone Books / The MIT Press 2016); Devon J. Steinmeyer, *Does State National Bank of Big Spring v. Geithner Stand a Fighting Chance?*, 89 Chi.-Kent. L. Rev. 471, 473 n.13 (2014)).

#### YITZCHAK KOPEL

Yitzchak Kopel is a Partner with Bursor & Fisher, P.A. Yitz focuses his practice on consumer class actions, employment law disputes, and complex business litigation. He has represented corporate and individual clients before federal and state courts, as well as in arbitration proceedings.

In 2017, Yitz obtained certification of nationwide classes on behalf of his clients in two cases. On July 7, 2017, Judge William H. Pauley III of the United States District Court for the Southern District of New York granted a motion to certify a nationwide class of purchasers of Bell + Howell Ultrasonic Pest Repellers. And on December 11, 2017, Judge Yvonne Gonzalez Rogers of the United States District Court for the Northern District of California granted a motion to certify a nationwide class of persons who received "wrong-number" robocalls from California Service Bureau, a debt collector. Bursor & Fisher was appointed as class counsel to represent the certified classes in both cases.

Yitz is admitted to the State Bars of New York and New Jersey, the bar of the United States Court of Appeals for the Eleventh Circuit, and the bars of the United States District Courts for the Southern District of New York, Eastern District of New York, Eastern District of Missouri, and District of New Jersey.

Yitz received his Juris Doctorate from Brooklyn Law School in 2012, graduating *cum laude* with two Dean's Awards. During law school, Yitz served as an Articles Editor for the Brooklyn Law Review and worked as a Law Clerk at Shearman & Sterling. In 2009, Yitz graduated *cum laude* from Queens College with a B.A. in Accounting.

#### Selected Published Decisions:

*Hart v. BHH*, *LLC*, 323 F. Supp. 3d 560 (S.D.N.Y. 2018), denying defendants' motion for summary judgment in certified class action involving the sale of ultrasonic pest repellers.

*Hart v. BHH*, *LLC*, 2018 WL 3471813 (S.D.N.Y. July 19, 2018), denying defendants' motion to exclude plaintiffs' expert in certified class action involving the sale of ultrasonic pest repellers.

*Penrose v. Buffalo Trace Distillery, Inc.*, 2018 WL 2334983 (E.D. Mo. Feb. 5, 2018), denying bourbon producers' motion to dismiss fraud and consumer protection claims in putative class action.

West v. California Service Bureau, Inc., 323 F.R.D. 295 (N.D. Cal. 2017), certifying a nationwide class of "wrong-number" robocall recipients.

*Hart v. BHH*, *LLC*, 2017 WL 2912519 (S.D.N.Y. July 7, 2017), certifying nationwide class of purchasers of ultrasonic pest repellers.

Browning v. Unilever United States, Inc., 2017 WL 7660643 (C.D. Cal. Apr. 26, 2017), denying motion to dismiss fraud and warranty claims in putative class action concerning facial scrub product.

Brenner v. Procter & Gamble Co., 2016 WL 8192946 (C.D. Cal. Oct. 20, 2016), denying motion to dismiss warranty and consumer protection claims in putative class action concerning baby wipes.

*Hewlett v. Consolidated World Travel, Inc.*, 2016 WL 4466536 (E.D. Cal. Aug. 23, 2016), denying telemarketer's motion to dismiss TCPA claims in putative class action.

*Bailey v. KIND, LLC*, 2016 WL 3456981 (C.D. Cal. June 16, 2016), denying motion to dismiss fraud and warranty claims in putative class action concerning snack bars.

*Hart v. BHH*, *LLC*, 2016 WL 2642228 (S.D.N.Y. May 5, 2016) denying motion to dismiss warranty and consumer protection claims in putative class action concerning ultrasonic pest repellers.

Marchuk v. Faruqi & Faruqi, LLP, et al., 100 F. Supp. 3d 302 (S.D.N.Y. 2015), granting clients' motion for judgment as a matter of law on claims for retaliation and defamation in employment action.

*In re Scotts EZ Seed Litigation*, 304 F.R.D. 397 (S.D.N.Y. 2015), granting class certification of false advertising and other claims brought by New York and California purchasers of grass seed product.

*Brady v. Basic Research, L.L.C.*, 101 F. Supp. 3d 217 (E.D.N.Y. 2015), denying diet pill manufacturers' motion to dismiss its purchasers' allegations for breach of express warranty in putative class action.

Ward v. TheLadders.com, Inc., 3 F. Supp. 3d 151 (S.D.N.Y. 2014), denying online job board's motion to dismiss its subscribers' allegations of consumer protection law violations in putative class action.

*Ebin v. Kangadis Food Inc.*, 297 F.R.D. 561 (S.D.N.Y. 2014), granting nationwide class certification of false advertising and other claims brought by purchasers of purported "100% Pure Olive Oil" product.

Ebin v. Kangadis Food Inc., 2014 WL 737878 (S.D.N.Y. Feb. 25, 2014), denying distributor's motion for summary judgment against nationwide class of purchasers of purported "100% Pure Olive Oil" product.

#### Selected Class Settlements:

*In re: Kangadis Food Inc.*, Case No. 8-14-72649 (Bankr. E.D.N.Y. Dec. 17, 2014), resolving class action claims for \$2 million as part of a Chapter 11 plan of reorganization, after a corporate defendant filed for bankruptcy following the certification of nationwide claims alleging that its olive oil was sold with false and misleading representations.

#### FREDERICK J. KLORCZYK III

Frederick J. Klorczyk III is a Partner with Bursor & Fisher, P.A. Fred focuses his practice on complex business litigation, consumer class actions, and employment law disputes.

In 2014, Fred served on the litigation team in *Ebin v. Kangadis Food Inc.* At class certification, Judge Rakoff adopted Fred's choice of law fraud analysis and research directly into his published decision certifying a nationwide fraud class. Fred was also an instrumental member of the litigation team led that challenged this defendant's Chapter 11 filing as a sham. After contesting plan confirmation in the bankruptcy court, the class action claims were resolved for \$2 million as part of a Chapter 11 plan of reorganization.

Fred is admitted to the State Bars of California, New York, and New Jersey, and is a member of the bars of the United States District Courts for the Northern, Central, and Eastern Districts of California, the Southern and Eastern Districts of New York, the District of New Jersey, and the Northern District of Illinois, as well as the bars of the United States Courts of Appeals for the Second and Ninth Circuits.

Fred received his Juris Doctor from Brooklyn Law School in 2013, graduating magna cum laude with two CALI Awards for the highest grade in his classes on criminal law and conflict of laws. During law school, Fred served as an Associate Managing Editor for the Brooklyn Journal of Corporate, Financial and Commercial Law and as an intern to the Honorable Alison J. Nathan of the United States District Court for the Southern District of New York and the Honorable Janet Bond Arterton of the United States District Court for the District of Connecticut. In 2010, Fred graduated from the University of Connecticut with a B.S. in Finance.

#### Selected Published Decisions:

*Porter v. NBTY, Inc.*, 2016 WL 6948379 (N.D. Ill. Nov. 28, 2016), denying supplement manufacturer's motion to dismiss consumers' allegations of false advertising relating to whey protein content.

Weisblum v. Prophase Labs, Inc., 88 F. Supp. 3d. 282 (S.D.N.Y. 2015), denying supplement manufacturer's motion to dismiss consumers' allegations of false advertising relating to a homeopathic cold product.

*In re Scotts EZ Seed Litigation*, 304 F.R.D. 397 (S.D.N.Y. 2015), granting class certification of false advertising and other claims brought by New York and California purchasers of grass seed product.

*Marchuk v. Faruqi & Faruqi, LLP*, et al., 100 F. Supp. 3d 302 (S.D.N.Y. 2015), granting individual and law firm defendants' motion for judgment as a matter of law on plaintiff's claims for retaliation and defamation, as well as for all claims against law firm partners, Nadeem and Lubna Faruqi.

Ebin v. Kangadis Food Inc., Case No. 13-4775 (2d Cir. Apr. 15, 2015), denying olive oil manufacturer's Rule 23(f) appeal following grant of nationwide class certification.

Ebin v. Kangadis Food Inc., 297 F.R.D. 561 (S.D.N.Y. 2014), granting nationwide class certification of false advertising and other claims brought by purchasers of purported "100% Pure Olive Oil" product.

*Ebin v. Kangadis Food Inc.*, 2014 WL 737878 (S.D.N.Y. Feb. 25, 2014), denying distributor's motion for summary judgment against nationwide class of purchasers of purported "100% Pure Olive Oil" product.

#### **Selected Class Settlements:**

*In Re: Blue Buffalo Marketing And Sales Practices Litigation*, Case No. 14-MD-2562-RWS (E.D. Mo. 2016), granting final approval of \$32 million class settlement to resolve claims of pet owners for alleged false advertising of pet foods.

*In re: Kangadis Food Inc.*, Case No. 8-14-72649 (Bankr. E.D.N.Y. Dec. 17, 2014), resolving class action claims for \$2 million as part of a Chapter 11 plan of reorganization, after a corporate defendant filed for bankruptcy following the certification of nationwide claims alleging that its olive oil was sold with false and misleading representations.

#### YEREMEY O. KRIVOSHEY

Yeremey O. Krivoshey is a Partner with Bursor & Fisher, P.A. Yeremey focuses his practice on class actions involving false advertising, fraud, illegal fees in consumer contracts, invasion of privacy, and unlawful debt collection practices. He has represented clients in a wide array of civil litigation, including appeals before the Ninth Circuit.

Yeremey is admitted to the State Bar of California. He is also a member of the bars of the United States Court of Appeals for the Ninth Circuit and the United States District Courts for the Northern, Central, Southern, and Eastern Districts of California.

Yeremey graduated from New York University School of Law in 2013, where he was a Samuel A. Herzog Scholar. Prior to Bursor & Fisher, P.A., Yeremey worked as a Law Clerk at Vladeck, Waldman, Elias & Engelhard, P.C, focusing on employment discrimination and wage and hour disputes. In law school, he has also interned at the American Civil Liberties Union and the United States Department of Justice. In 2010, Yeremey graduated *cum laude* from Vanderbilt University.

#### **Selected Published Decisions:**

*Bayol v. Zipcar, Inc.*, 2014 WL 4793935 (N.D. Cal. Sept. 25, 2014), denying enforcement of forum selection clause based on public policy grounds.

*Bayol v. Zipcar, Inc.*, 78 F. Supp. 3d 1252 (N.D. Cal. Jan. 29, 2015), denying car-rental company's motion to dismiss its subscriber's allegations of unlawful late fees.

*Brown v. Comcast Corp.*, 2016 WL 9109112 (C.D. Cal. Aug. 12, 2016), denying internet service provider's motion to compel arbitration of claims alleged under the Telephone Consumer Protection Act.

Horanzy v. Vemma Nutrition Co., Case No. 15-cv-298-PHX-JJT (D. Ariz. Apr. 16, 2016), denying multi-level marketer's and its chief scientific officer's motion to dismiss their customer's fraud claims.

McMillion, et al. v. Rash Curtis & Associates, 2017 WL 3895764 (N.D. Cal. Sept. 6, 2017), granting nationwide class certification of Telephone Consumer Protection Act claims by persons receiving autodialed and prerecorded calls without consent.

McMillion, et al. v. Rash Curtis & Associates, 2018 WL 692105 (N.D. Cal. Feb. 2, 2018), granting plaintiffs' motion for partial summary judgment on Telephone Consumer Protection Act violations in certified class action.

Salazar v. Honest Tea, Inc., 2015 WL 7017050 (E.D. Cal. Nov. 12. 2015), denying manufacturer's motion for summary judgment as to customer's false advertising claims.

#### Selected Class Settlements:

*Retta v. Millennium Prods., Inc.,* (Central District of California) - \$8.25 million settlement to resolve claims of bottled tea purchasers for alleged false advertising.

#### PHILIP L. FRAIETTA

Philip L. Fraietta is a Partner with Bursor & Fisher, P.A. Phil focuses his practice on data privacy, complex business litigation, consumer class actions, and employment law disputes.

Phil has significant experience in litigating consumer class actions, particularly those involving data privacy claims. Since 2016, Phil has settled five state privacy law actions on a class-wide basis for a total of over \$95 million in settlement value for class members. In addition to data privacy claims, Phil has significant experience in litigating and settling class action claims involving dietary supplements.

Phil is admitted to the State Bars of New York and New Jersey, the bars of the United States District Courts for the Southern District of New York, the Eastern District of New York, the Western District of New York, the Northern District of New York, the District of New Jersey, the Eastern District of Michigan and the United States Court of Appeals for the Second Circuit. Phil was a Summer Associate with Bursor & Fisher prior to joining the firm.

Phil received his Juris Doctor from Fordham University School of Law in 2014, graduating cum laude. During law school, Phil served as an Articles & Notes Editor for the Fordham Law Review, and published two articles. In addition, Phil received the Addison M. Metcalf Labor Law Prize for the highest grade in his graduating class in the Labor Law course, and received the highest grade in his Anti-Discrimination Law & Policy course. In 2011, Phil graduated cum laude from Fordham University with a B.A. in Economics.

#### **Selected Published Decisions:**

Boelter v. Hearst Communications, Inc., 269 F. Supp. 3d 172 (S.D.N.Y. 2017), granting plaintiff's motion for partial summary judgment on state privacy law violations in putative class action.

*Boelter v. Hearst Communications, Inc.*, 192 F. Supp. 3d 427 (S.D.N.Y. 2016), denying publisher's motion to dismiss its subscriber's allegations of state privacy law violations in putative class action.

Boelter v. Advance Magazine Publishers Inc., 210 F. Supp. 3d 579 (S.D.N.Y. 2016), denying publisher's motion to dismiss its subscriber's allegations of state privacy law violations in putative class action.

*Porter v. NBTY, Inc.*, 2016 WL 6948379 (N.D. Ill. Nov. 28, 2016), denying supplement manufacturer's motion to dismiss consumers' allegations of false advertising relating to whey protein content.

#### Selected Class Settlements:

Ruppel v. Consumers Union of United States, Inc., Case No. 16-cv-02444-KMK (S.D.N.Y. 2018) – final approval granted for \$16.375 million class settlement to resolve claims of magazine subscribers for alleged statutory privacy violations.

*Taylor v. Trusted Media Brands, Inc.*, Case No. 16-cv-01812-KMK (S.D.N.Y. 2018) – final approval granted for \$8.225 million class settlement to resolve claims of magazine subscribers for alleged statutory privacy violations.

*Moeller v. American Media, Inc.*, Case No. 16-cv-11367-JEL (E.D. Mich. 2017) – final approval granted for \$7.6 million class settlement to resolve claims of magazine subscribers for alleged statutory privacy violations.

#### THOMAS A. REYDA

Thomas Reyda is an Associate with Bursor & Fisher, P.A. Thomas focuses his practice on complex business litigation and consumer class actions.

Thomas is admitted to the State Bar of California and is a member of the bars of the United States District Courts for the Northern, Central, Southern, and Eastern Districts of California.

Thomas received his Juris Doctorate from Berkeley Law School in 2016. During law school Mr. Reyda worked as a Law Clerk at Kershaw Cutter & Ratinoff, LLP. In 2012, Mr. Reyda graduated from the Colorado College with a B.A. in International Political Economy.

#### **ALEC M. LESLIE**

Alec Leslie is an Associate with Bursor & Fisher, P.A. He focuses his practice on consumer class actions, employment law disputes, and complex business litigation.

Alec is admitted to the State Bar of New York and is a member of the bar of the United States District Courts for the Southern and Eastern Districts of New York. Alec was a Summer Associate with Bursor & Fisher prior to joining the firm.

Alec received his Juris Doctorate from Brooklyn Law School in 2016, graduating *cum laude*. During law school, Alec served as an Articles Editor for Brooklyn Law Review. In addition, Alec served as an intern to the Honorable James C. Francis for the Southern District of New York and the Honorable Vincent Del Giudice, Supreme Court, Kings County. Alec graduated from the University of Colorado with a B.A. in Philosophy in 2012.

#### BLAIR E. REED

Blair Reed is an Associate with Bursor & Fisher, P.A. She focuses her practice on complex business litigation and consumer class actions.

Blair is admitted to the State Bar of California and is a member of the bars of the United States District Courts for the Northern, Central, Southern, and Eastern Districts of California.

Blair received her Juris Doctorate from the University of San Francisco School of Law in 2017, where she was a Dean's Scholar and served as a staff member for USF Law Review. During law school, Blair worked as a Law Clerk at a Bay Area law firm with a focus on wage and hour class actions. In addition, she worked as a Law Clerk at the Santa Cruz County District Attorney's Office. In 2013, Blair graduated from the University of San Francisco where she played on the Women's Tennis Team and studied Communications.

#### **ANDREW OBERGFELL**

Andrew Obergfell is an Associate with Bursor & Fisher, P.A. Andrew focuses his practice on complex civil litigation and class actions.

Andrew graduated from Drew University with *summa cum laude* distinction. While at Drew University, Andrew was captain of the varsity baseball team. Andrew was inducted into the Phi Beta Kappa honor society and was President of the college's chapter of the Pi Sigma Alpha political science honor society.

Andrew attended Seton Hall University School of Law, where he obtained his law degree with *magna cum laude* distinction, and was inducted into the prestigious Order of the Coif honor society. While in law school, Andrew was an editor and published author for the Seton Hall Law Review, participated in the Impact Litigation Clinic, and was a member of the Interscholastic Moot Court Board. As part of the Interscholastic Moot Court Board, Andrew received the national best-brief award in the 2015 ABA National Appellate Advocacy Competition, as well as the 2015 best student-written brief of the year award as recognized by Scribes, the American Society of Legal Writers.

Prior to joining the firm, Andrew practiced at an AmLaw 100 law firm. He also clerked for The Honorable Douglas M. Fasciale in the New Jersey Superior Court, Appellate Division, in Newark, New Jersey.

#### **ALLYSON SHEA**

Allyson Shea is a Law Clerk with Bursor & Fisher, P.A.

Allyson was a Summer Associate with Bursor & Fisher prior to joining the firm.

Allyson received her Juris Doctorate from Columbia Law School in 2018, where she was a Harlan Fiske Stone Scholar and Executive Articles Editor of the Columbia Journal of Law & the Arts. In 2012, she graduated cum laude from Columbia University.

	Page 1
1	IN THE UNITED STATES DISTRICT COURT
2	SOUTHERN DISTRICT OF NEW YORK
3	NICHOLAS PARKER, on behalf
	of himself and all others
4	similarly situated,
	Plaintiffs,
5	
	v. Civil Action No.
6	17-cv-5353-GBD
	UNITED INDUSTRIES CORPORATION,
7	Defendant.
8	
9	~~~~~~~~~~~
10	
11	30(b)(60 Deposition of
12	DEFENDANT UNITED INDUSTRIES CORPORATION
13	(Volume I, Non-Confidential Sections)
14	(Witness: TRAVIS WOOD)
15	
16	December 18, 2018
17	10:44 A.M., CST
18	
19	Taken at:
20	Gore/Perry Veritext
21	515 Olive Street, Suite 300
22	St. Louis, Missouri
23	
24	Reported by:
25	J. Bryan Jordan, CCR-MO

Page 38 court reporter to please mark as Exhibit 10 and hand 1 it to the witness. (Plaintiff's Exhibit 10 3 marked for identification.) 4 5 BY MR. KOPEL: Mr. Wood, do you have Exhibit 10? 6 0. 7 Α. Yes, I do. Ο. Have you--have you seen these images before? 8 9 Α. Yes. 10 Q. What are they? It looks like the outside label for Cutter 11 12 Natural Insect Repellant, as well as directions for 13 use. Now, this, the product was sold by United 14 15 Industries Corporation during the tenure of your employment there, correct? 16 17 Yes, I believe so. Α. 18 Ο. And it was sold in two forms, in a spray and a pump; correct? 19 I believe that's correct. 2.0 Α. 21 Do you--do you know whether this product 2.2. predated your time there or whether it was actually developed and began distribution during your time at 2.3 24 United Industries Corp.? I believe it was during my time there. 2.5

Page 40 It's possible that the formula might have 1 2. changed in some ways. I don't recall specifically. 3 So what was the purpose, principal function of this product? 4 To repel various insects. 5 The notice, the only, the only insect that 6 7 is mentioned on this label is mosquitoes. Is that correct? 8 9 Α. I'll have to review the document. 10 (Witness peruses Exhibit 10.) 11 Take your time. Q. 12 Α. Sure. 13 (Witness continues to peruse Exhibit 10.) 14 15 Α. I believe that's correct, yes. 16 Okay, so would you agree that the function Ο. 17 of this product was to be a mosquito repellant? 18 Α. Yes. Can you think of any reason someone might 19 20 buy this product other than for protection against mosquitoes? 21 2.2 Α. Not that I could think of. 23 Now, on--what was the active ingredient or Ο. active ingredients for this product? 24 Well, based on the label, geraniol, soybean 2.5 Α.

Veritext Legal Solutions

www.veritext.com

888-391-3376

Page 42 changes for this product that occurred during your 1 tenure at Spectrum Brands? 2 I don't recall. 3 Α. Now, on page 50, here, in the middle of the 4 5 page, it says, "Repels mosquitoes for hours." Do you see that? 6 7 Α. Yes. Did you have--first of all, would you 8 9 consider this a product claim? 10 MS. SCHMELZ: Object to form. Yes, it appears to be a product claim. 11 Α. 12 BY MR. KOPEL: 13 Did you have any role in writing this product claim? 14 15 Α. No. 16 Were you consulted when it came to 17 substantiation of these product claims? 18 Α. I provided the database on the testing I did for the product. 19 But you--but you didn't provide specific 2.0 21 feedback as it pertains to the claim, itself; correct? 2.2 Α. That's correct. Now, the word "hours" has an "s" at the end 2.3 24 of it; correct? 25 Α. Yes.

Page 43 Would you agree with me that that, that 1 indicates multiple, as in two or more hours? 2 MS. SCHMELZ: Object to form. 3 Α. Yes. 4 5 BY MR. KOPEL: Do you have any understanding of which 6 7 market, specifically, this product was intended for? MS. SCHMELZ: Object to form. 8 9 That's really not in my realm of expertise, so I'd just be speculating. 10 BY MR. KOPEL: 11 12 Okay, so you--but you didn't have, you 13 didn't have any specific understanding of that one way or another? Is that correct? 14 15 Α. Not that I recall, no. Now, do you see on--do you see on page 51, 16 17 there's a section titled "Directions For Use"? 18 Α. Yes. Do you know who authored these directions? 19 2.0 Α. I do not, no. 21 Based on your understanding of how the 22 company worked, who would have authored the directions for use on a product like this? 2.3 24 Α. That would most likely involve the regulatory team, the marketing team, and potentially, 25

Page 45

Q. Is there any circumstance in which these instructions would alert you for the need to apply it for a shorter duration than two hours?

MS. SCHMELZ: Object to form.

A. For me personally, no.

#### BY MR. KOPEL:

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

21

2.2.

2.3

24

2.5

- Q. If you look--you can, please, put Exhibit 10 to the side. We might touch on it later, but not now.
- Q. When it comes to arm-in-cage testing, do you have familiarity with the guidelines from the World Health Organization?
  - A. No, not that I recall.
- Q. Were you ever made aware that the World Health Organization has guidelines for arm-in-cage testing?
  - A. Not that I know of, no.
- Q. How about EPA? Were you made aware that the EPA had specific guidelines for arm-in-cage testing?
  - A. Not that I know of, no.
- Q. I'm going to ask Mr. Leslie to please have the court reporter hand the court reporter a document in our folder 35 bearing Bates numbers UIC 14665 to 674, which I'll ask the court reporter to please mark as Exhibit 11 and hand to the witness.

Veritext Legal Solutions

www.veritext.com

888-391-3376

Page 63 MS. SCHMELZ: Object to form. 1 2 In our case, we were testing as a comparison different formulas, and testing to determine an 3 average protection time and how to determine which 4 5 product to send out, so we weren't looking to look at a representative sample. 6 7 BY MR. KOPEL: So when it came to your test, would you say 8 Ο. 9 that they are not necessarily indicative of how the 10 general public might respond, or how this product 11 might perform for the general public? 12 MS. SCHMELZ: Object to form. 13 Α. That's certainly possible, yes. BY MR. KOPEL: 14 15 Because it simply wasn't tested on enough different people; correct? 16 17 Α. That's correct. That was not the purpose of the testing. 18 I understand. So you--would you feel 19 comfortable drawing conclusions, based on 20 the--conclusions as to the product's performance for 21 2.2 other people based on the results of these tests?

A. I would be comfortable with this data to use to determine which products should be sent for outside

MS. SCHMELZ: Object to form.

2.3

24

2.5

Page 73 is--this is a test that you conducted on finished 1 product; is that right? 2 MS. SCHMELZ: Object to form. 3 I'd have to look back at the notebook and 4 5 cross-reference that lot number to know exactly what the formulation was. 6 7 MR. KOPEL: Okay, so looking in tandem with documents, 8 0. 9 Exhibits 11 and 12, other than yourself, is Mr. Long 10 the only person on whom you conducted testing for 11 Cutter Natural Insect Repellant? 12 MS. SCHMELZ: Object to form. 13 Α. That appears to be the case, yes. BY MR. KOPEL: 14 15 And when you tested it on Mr. Long, your tests revealed an average protection time of zero 16 minutes, correct? 17 18 MS. SCHMELZ: Object to form. 19 Yes, it appears his trial had a protection time of zero. 2.0 BY MR. KOPEL: 21 2.2. If you look at the tests that you ran in 2012 and look at the, the mosquito pressure in terms 2.3 24 of landings per minute, it appears that you had higher landing times in 2012 than you generally observed in 25

Page 78 at two hours, and that would be a protection time, two 1 hours. 3 Okay, thank you. That's helpful, and that -so that's your understanding of why Ms. Thompson wrote 4 "Protection time: 2 hours" here; correct? 5 Yes. It failed at two and a half hours, so 6 7 you would go back to the last successful trial. was two hours. 8 9 Okay, she--okay, you agree with that 10 determination that she made, right? 11 Α. That's correct. 12 So, then, if you turn to the next page, Ο. 13 which is 35420, here she wrote "Protection time: .5 14 hours." Do you see that? 15 Α. Yes. 16 And do you agree with that? Ο. 17 Yes. It failed at one hour, so the last Α. successful trial was at a half hour; a half-hour 18 interval. 19 And if you turn to the next page, which is 2.0 Ο. 21 35421, here, she wrote "Protection time: 1 hour." Do 22 you see that? 2.3 Α. Yes. 24 And do you agree with that? Ο. Α. 25 Yes.

Page 87 were shorter average protection times for Aedes 1 aegypti than there were for Culex? 2 Α. No, I don't. 3 Now, do you still have Exhibit 10 handy? 4 Ο. 5 Α. Yes. Now, when we look at the directions for use, 6 7 and it states "Reapply every two hours or as needed." If, based on the test results you've seen, if someone 8 9 were to reapply according to the instruction, they would being exposing themselves to a risk of being 10 11 bitten by Aedes aegypti mosquitoes; is that correct? 12 MS. SCHMELZ: Object to form. 13 Α. I don't have specific knowledge of how they 14 determine the label claims as far as the regulatory 15 process. 16 BY MR. KOPEL: 17 21 And here, these instructions for 22 reapplication exceed the average protection time that

Q. And here, these instructions for reapplication exceed the average protection time that you found for this product as against the Aedes aegypti mosquito; correct?

2.3

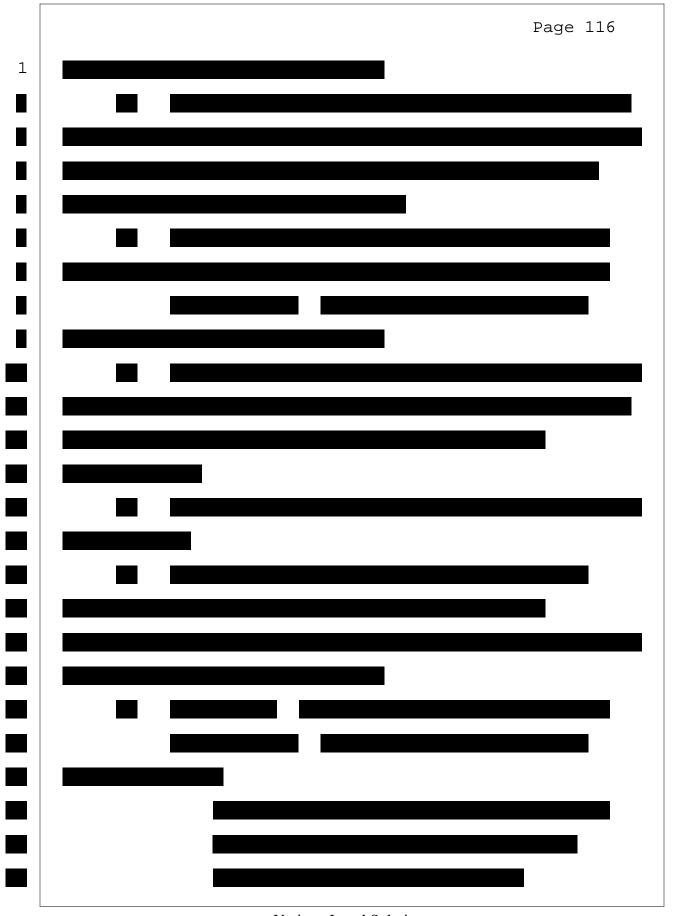
24

25

A. Again, going back to discussing our in-house

Page 88 efficacy testing, it was meant as a determinant to 1 determine which formula to send out for additional 3 testing. MR. KOPEL: Can the court reporter, please, 4 5 repeat the question? THE COURT REPORTER: (Reading back) 6 7 "Q: And here, these instructions for reapplication exceed the average protection time that 8 9 you found for this product as against Aedes aegypti 10 mosquito, correct?" BY MR. KOPEL: 11 12 Okay, so that's the question. I appreciate 13 what you are saying, but can you, please, answer that question specifically? 14 15 MS. SCHMELZ: Same objections. 16 Yes. In terms of our in-house efficacy testing, it does exceed. 17 BY MR. KOPEL: 18 Do you stand by the results of the testing 19 you conducted? 20 21 Yes, I do. 2.2.

# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 38 of 156



	Page 1
1	IN THE UNITED STATES DISTRICT COURT
2	SOUTHERN DISTRICT OF NEW YORK
3	
4	NICHOLAS PARKER, on behalf
	of himself and all others
5	similarly situated,
	Plaintiffs,
6	
	v. Civil Action No.
7	17-cv-5353-GBD
	UNITED INDUSTRIES CORPORATION,
8	Defendant.
9	~~~~~~~~~~
10	30(b)(6) Deposition of
11	DEFENDANT UNITED INDUSTRIES CORPORATION
12	(Witness: KATHY CEARNAL)
13	
	(Volume I, Non-Confidential Section)
14	
15	December 20, 2018
16	10:10 A.M.
17	
18	Taken at:
19	Gore/Perry Veritext
20	515 Olive Street, Suite 300
21	St. Louis, Missouri
22	
23	Reported by:
24	J. Bryan Jordan, CCR-MO
25	

Page 19

- MS. SCHMELZ: Object to form; calls for speculation, lacks foundation.
- A. Yes, there were discussions that reflected that our sales did go up during the--the Zika scare.

  BY MR. KOPEL:
- Q. And was that a result of the fact that consumers wanted to use mosquito repellent and other mosquito products in order to protect them from contracting the Zika virus?
- MS. SCHMELZ: Object to form; calls for speculation, lacks foundation.
  - A. I don't like an exact answer to that question.
- 14 BY MR. KOPEL:

1

2

3

4

5

6

7

8

9

10

11

12

13

18

19

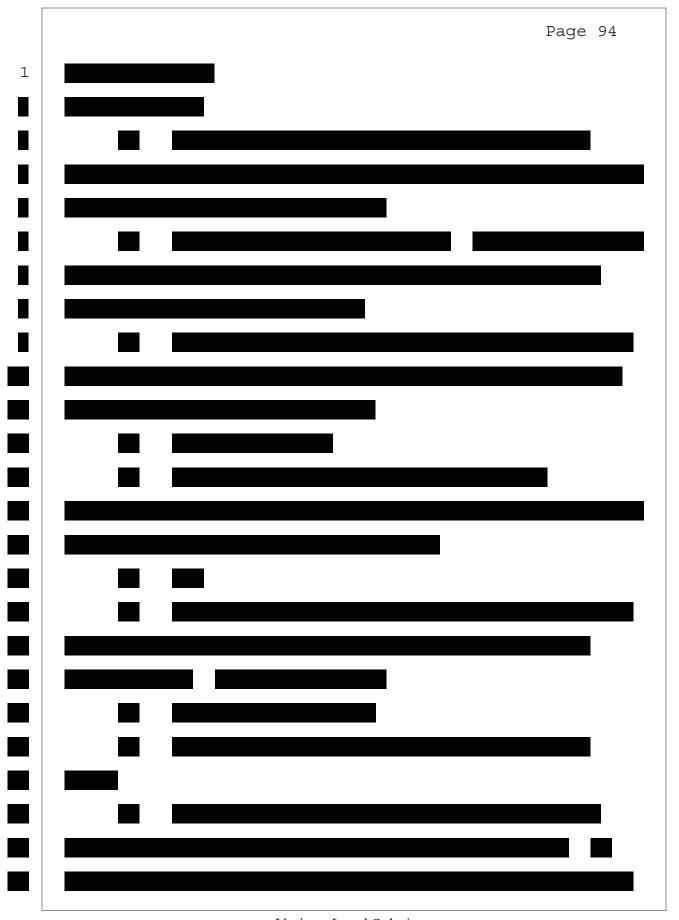
2.0

21

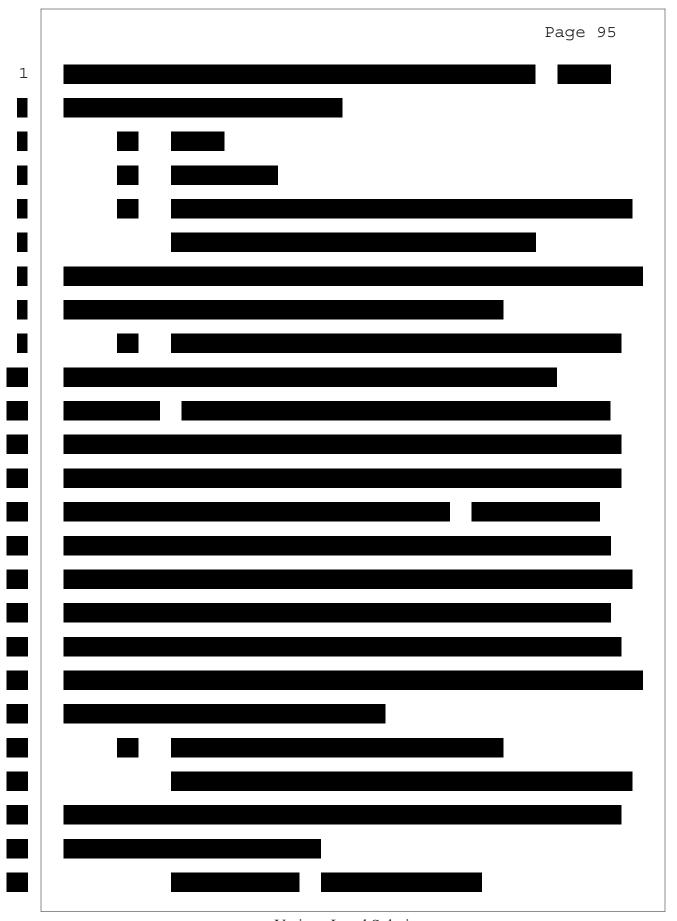
2.2.

- Q. Now, the topic of this press release was a survey that was conducted by Spectrum Brands; is that correct?
  - MS. SCHMELZ: Object to form; lacks foundation, calls for speculation.
  - A. There--there is a paragraph in here about an interview. I don't see that it says anywhere it absolutely was conducted by Spectrum Brands.
- 23 BY MR. KOPEL:
- Q. So if you look at the second sentence of the press release, it states, "However, according to a new

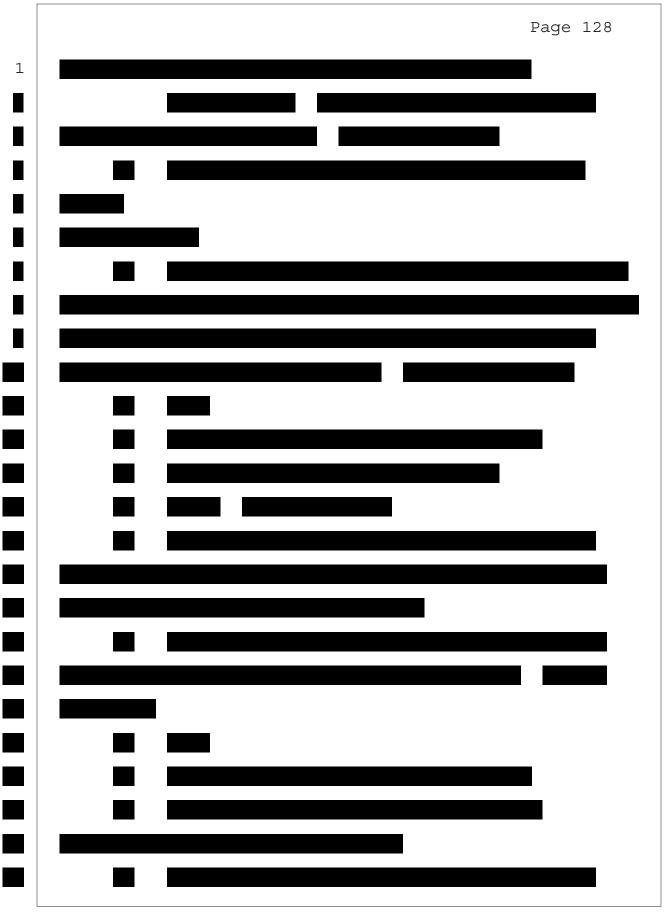
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 42 of 156



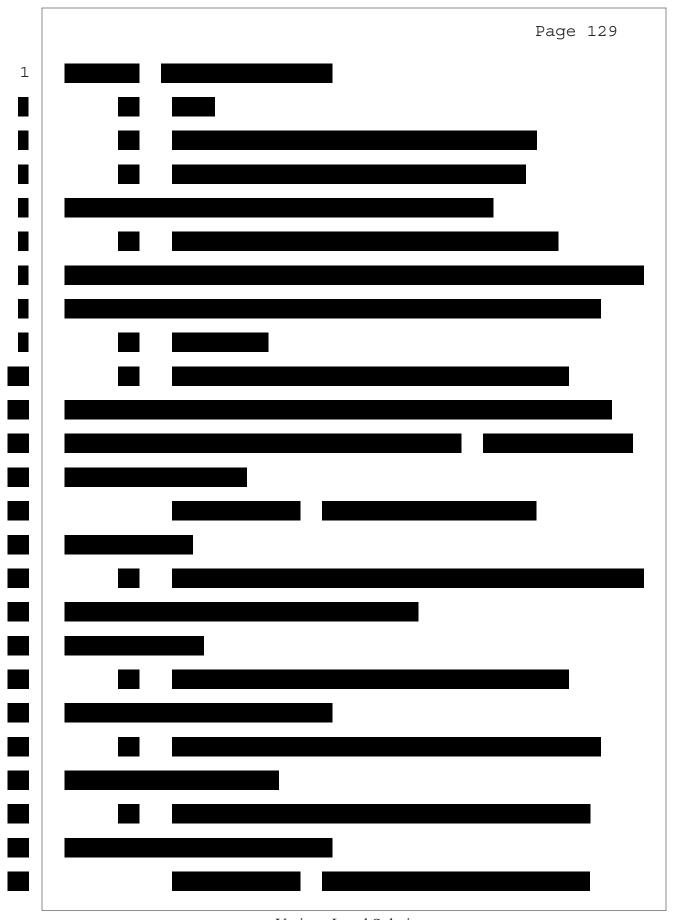
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 43 of 156



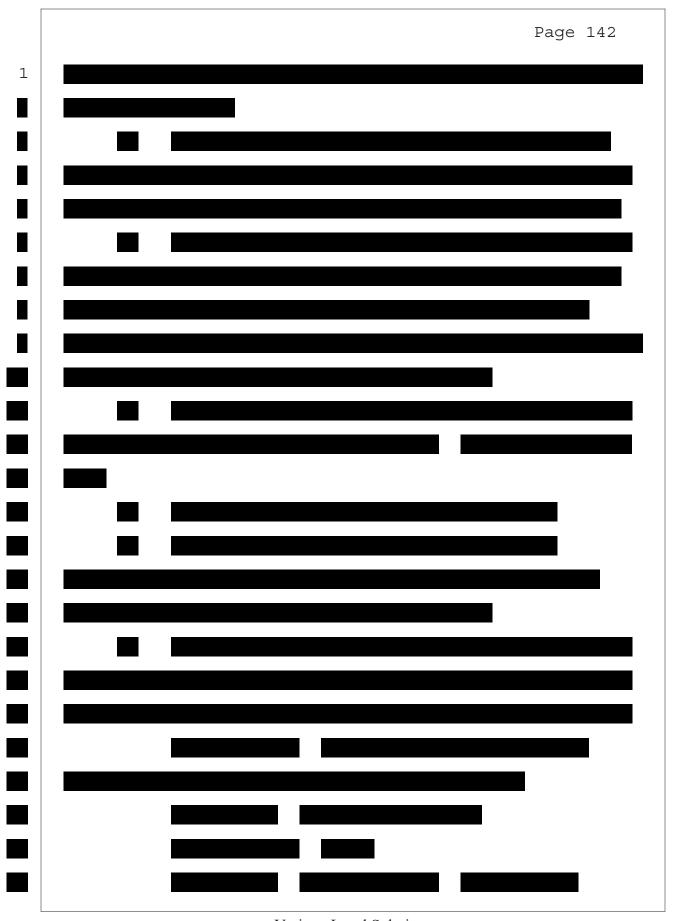
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 44 of 156



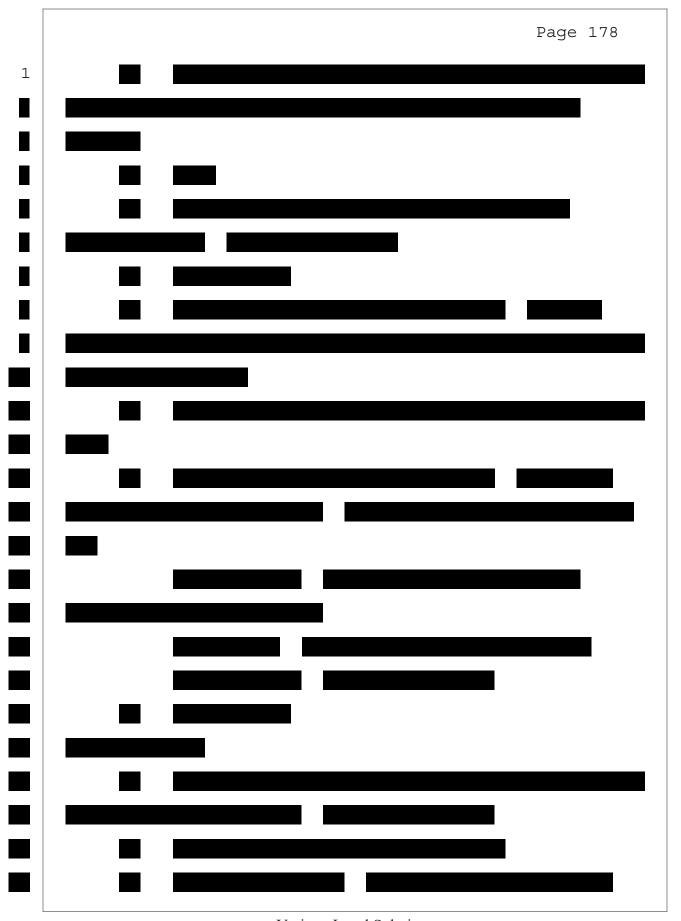
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 45 of 156



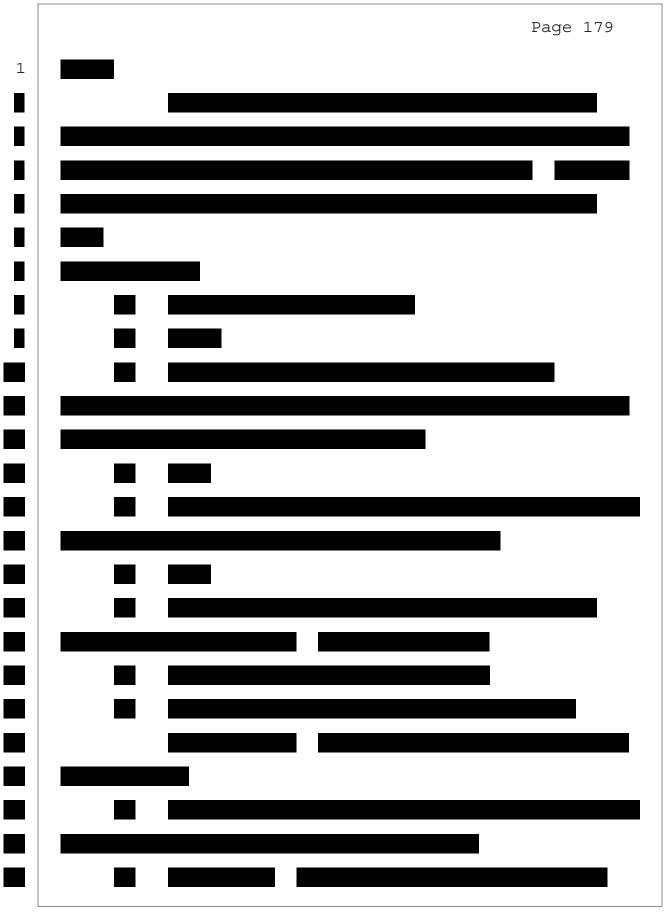
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 46 of 156



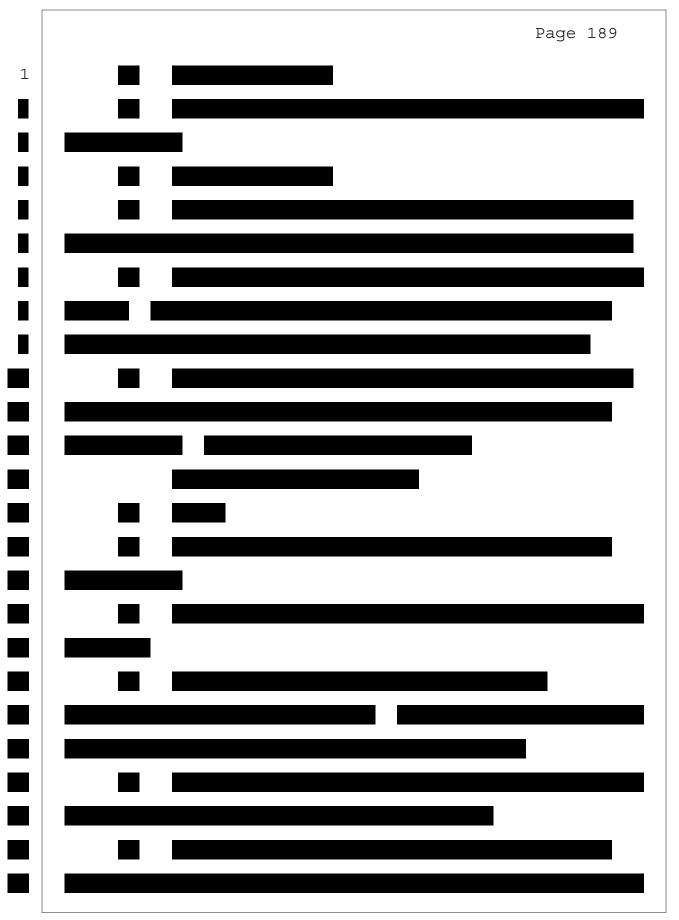
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 47 of 156



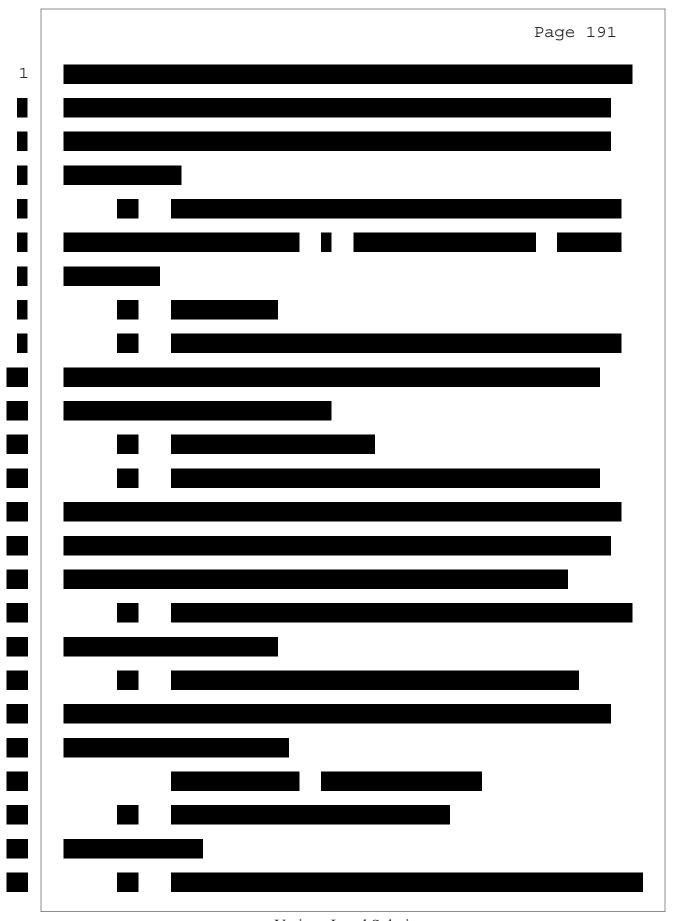
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 48 of 156



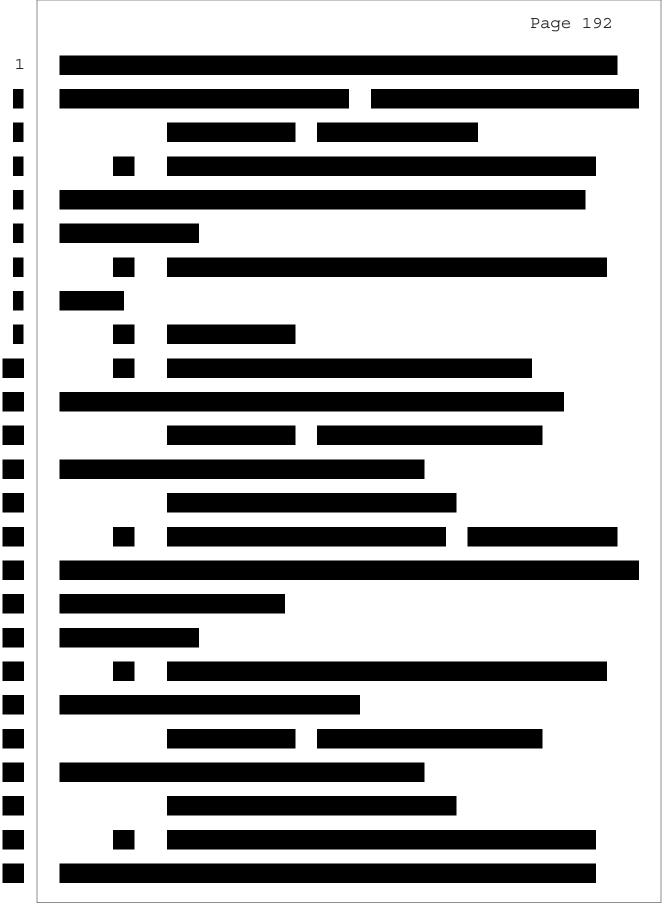
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 49 of 156



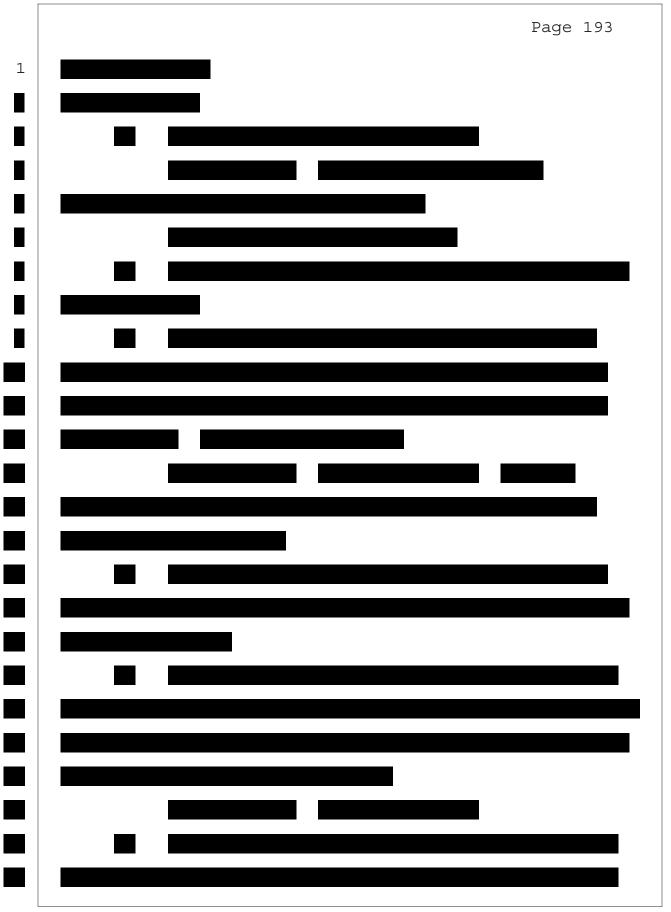
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 50 of 156



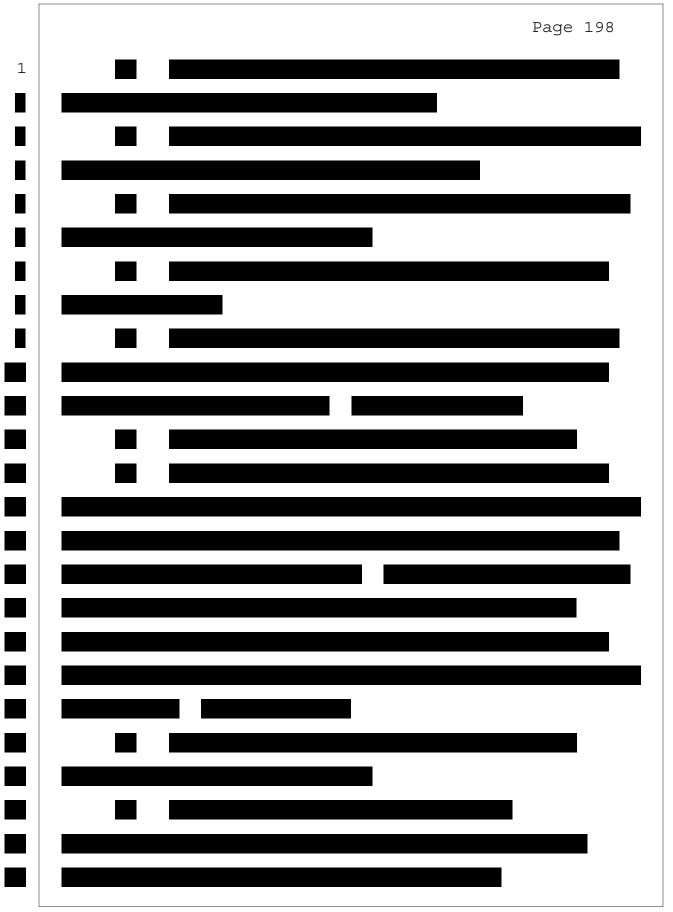
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 51 of 156



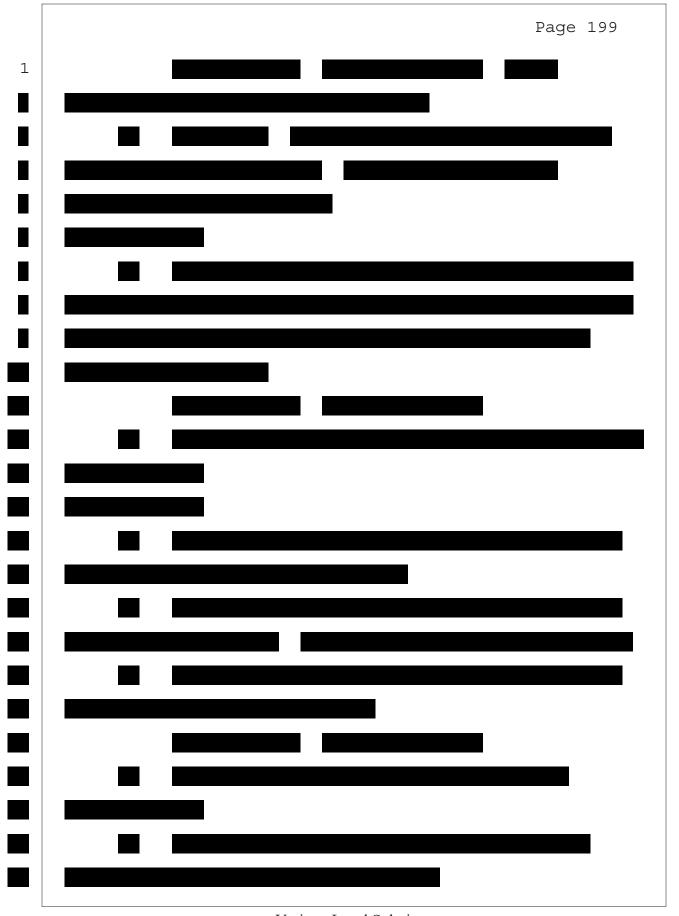
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 52 of 156



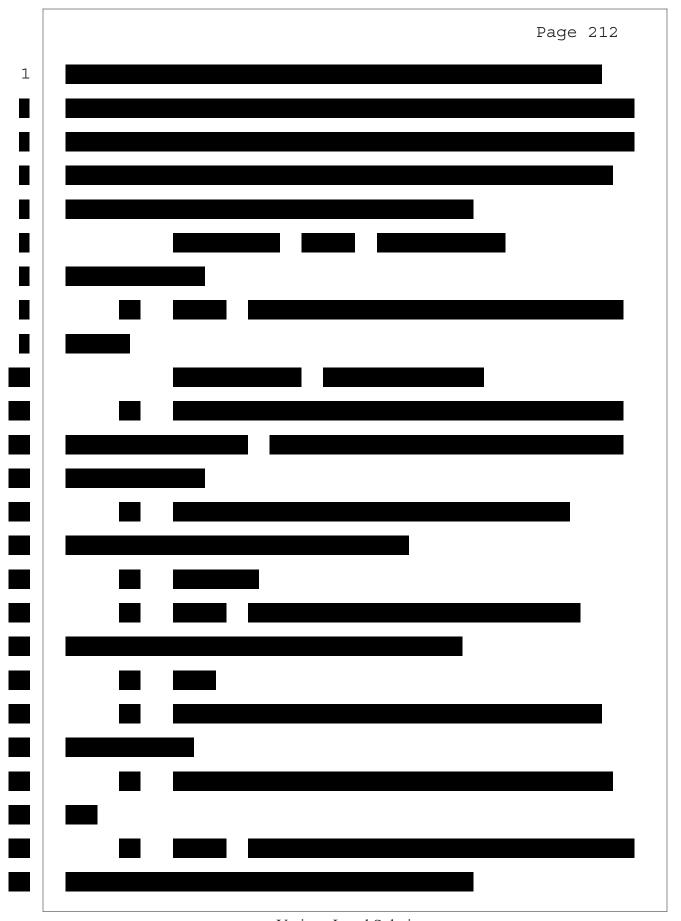
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 53 of 156



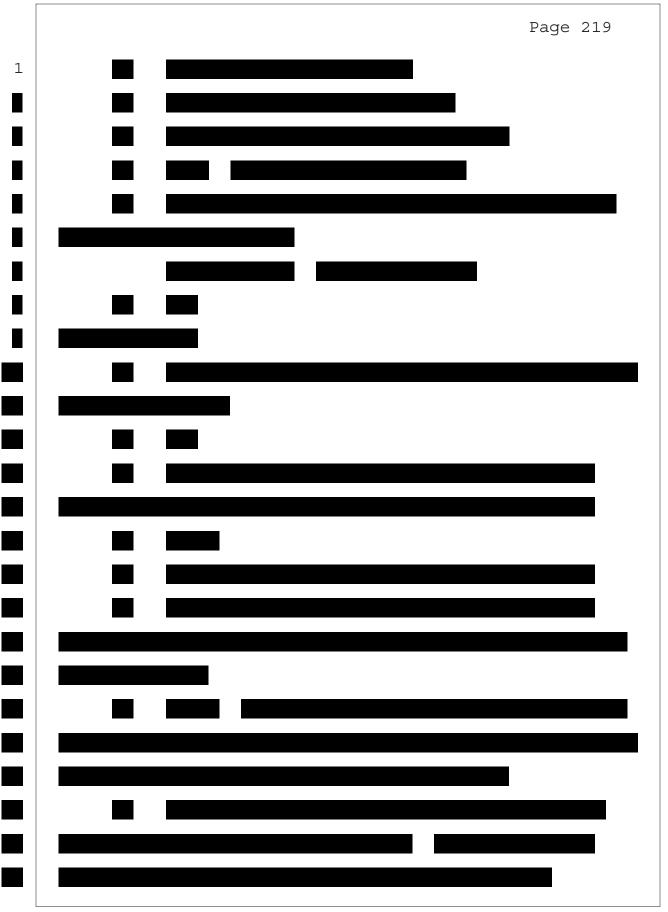
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 54 of 156



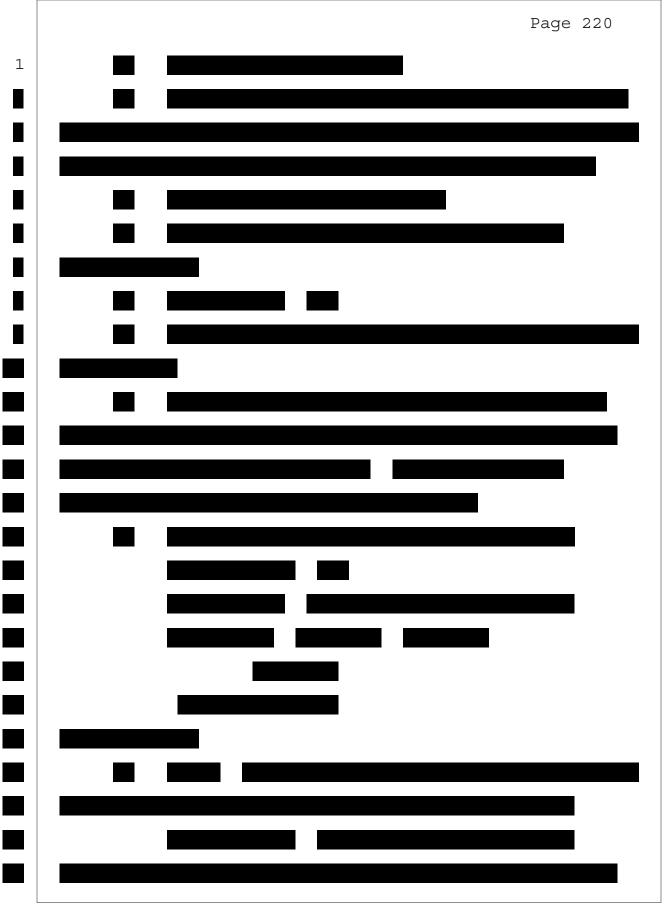
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 55 of 156



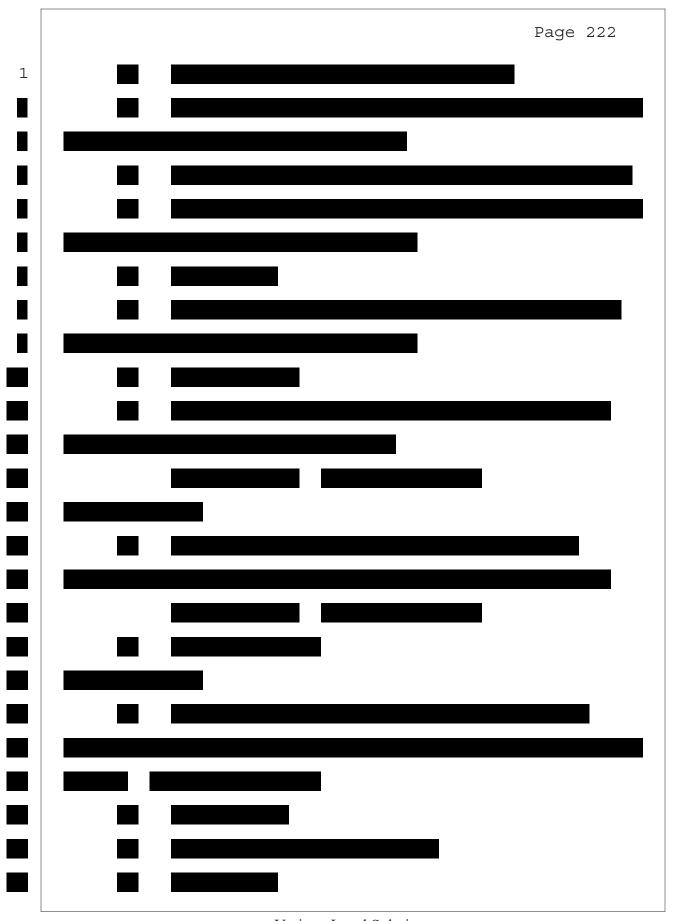
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 56 of 156



# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 57 of 156



# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 58 of 156



# GUIDEUNES FOR EFFICACY TESTING OF MOSQUITO REPELLENTS FOR HUMAN SKIN





# GUIDELINES FOR EFFICACY TESTING OF MOSQUITO REPELLENTS FOR HUMAN SKIN



CONTROL OF NEGLECTED TROPICAL DISEASES WHO PESTICIDE EVALUATION SCHEME

#### © World Health Organization 2009

All rights reserved.

The designations employed and the presentation of the material in this publication do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

The mention of specific companies or of certain manufacturers' products does not imply that they are endorsed or recommended by the World Health Organization in preference to others of a similar nature that are not mentioned. Errors and omissions excepted, the names of proprietary products are distinguished by initial capital letters.

All reasonable precautions have been taken by the World Health Organization to verify the information contained in this publication. However, the published material is being distributed without warranty of any kind, either express or implied. The responsibility for the interpretation and use of the material lies with the reader. In no event shall the World Health Organization be liable for damages arising from its use.

# **CONTENTS**

			Page
ACK	KNOWLE	EDGEMENTS	III
1.	INTR	ODUCTION	1
2.	LAB	ORATORY STUDIES	4
	2.1 2.2	Estimation of effective dose (technical material) Estimation of complete protection time (technical material and	6
		formulated product)	8
3.	FIEL	D TRIALS	10
	3.1	Efficacy and persistence of technical material	10
	3.2	Efficacy and persistence of formulated product	18
4.	REF	ERENCES	20
ANN	NEX 1.	GUIDELINES FOR DEVELOPMENT OF THE INFORMED CONSENT FORM	21
ANN	NEX 2.	MEASUREMENT OF THE SURFACE AREA OF THE SKIN OF LIMBS	26
ANN	NEX 3.	ESTIMATION OF MEDIAN AND CONFIDENCE INTERVAL OF COMPLETE PROTECTION TIME USING THE KAPLAN-MEIER SURVIVOR FUNCTION	28

#### **ACKNOWLEDGEMENTS**

The first draft of these guidelines was prepared by a drafting committee appointed by the World Health Organization (WHO) and composed of Dr Don Barnard, Dr Ulrich Bernier and Dr Gary Clark, Mosquito and Fly Research Unit, United States Department of Agriculture, Gainesville, FL, USA; Dr Michael Nathan, World Health Organization (WHO), Geneva, Switzerland; and Dr Morteza Zaim, WHO Pesticide Evaluation Scheme (WHOPES), Geneva, Switzerland. None of the experts declared an interest in the subject matter of these guidelines.

The first draft of the guidelines was subsequently peer reviewed by individuals and institutions known for their expertise in the subject.

The above-mentioned drafting committee considered comments and prepared a second draft. This revised draft was reviewed and discussed at the WHOPES consultation held at WHO headquarters in Geneva, Switzerland on 23–27 February 2009. Representatives from industry were invited to attend the first one-and-a-half-days of the meeting for the purposes of exchanging information and sharing views, after which the second draft and comments were further reviewed by a group of WHO-appointed experts, who finalized the guidelines by consensus. These experts were Dr Jane Bonds, Florida A&M University, Panama City, FL, USA; Dr Don Barnard, Mosquito and Fly Research Unit. United States Department of Agriculture. Gainesville, FL, USA; Dr Ulrich Bernier, Mosquito and Fly Research Unit. United States Department of Agriculture. Gainesville, FL, USA; Dr Gary Clark, Mosquito and Fly Research Unit, United States Department of Agriculture, Gainesville, FL, USA; Dr Vincent Corbel, Centre de Recherches Entomologiques, Cotonou, Benin; Dr David Dame, Gainesville, FL, USA; Dr Nigel Hill, London School of Hygiene and Tropical Medicine, London, UK; Dr Zairi Jaal, Universiti Sains Malaysia, Penang, Malaysia; Mr Christophe Lagneau, EID Méditerranée, Montpellier, France; Mr Mark Latham, Manatee County Mosquito Control: Palmetto, FL, USA: Dr Lee Han Lim, Institute for Medical Research, Kuala Lumpur, Malaysia; Professor Dr

Graham Matthews, Imperial College, Ascot, UK; Dr Peter Miller, University of Technology, Sydney, NSW, Australia; Professor Dr A. Jennifer Mordue Luntz, University of Aberdeen, Scotland, UK; Dr Michael Nathan, Farges, France; and Dr Kevin Sweeney, United States Environmental Protection Agency, Washington, DC, USA.

From the total of 15 experts who participated in this Consultation, two experts declared an interest: (i) Dr Nigel Hill: his research group at the London School of Hygiene and Tropical Medicine conducts screening of developmental public health pesticides for a large number of companies; (ii) Professor Dr A. Jennifer Mordue Luntz: she is the co-inventor of a novel, patented insect repellent owned by her employer, the University of Aberdeen, together with an external partner.

The WHO Department of Control of Neglected Tropical Diseases acknowledges all the individuals and institutions listed above for their important contributions to this work. It also expresses its sincere thanks to Dr Gary G. Clark, Research Leader, Mosquito and Fly Research Unit, United States Department of Agriculture, Gainesville, FL, USA for his valuable support and technical advice. The financial support provided by the Bill & Melinda Gates Foundation is also gratefully acknowledged.

The Department greatly appreciates feedback and suggestions from national programmes, research institutions and industry on the guidelines in order to improve future editions.

#### 1. INTRODUCTION

The purpose of these guidelines is to provide specific and standardized procedures and criteria for efficacy testing and evaluation of mosquito repellents for human skin. Their aim is to harmonize the testing procedures carried out in different laboratories and institutions in order to generate comparable data for registering and labelling such products by the national regulatory authorities. However, the requirements for registration of pesticides, including repellents, are determined by the national regulatory authorities.

These guidelines are an expanded and updated version of those recommended by the WHO Pesticide Evaluation Scheme (WHOPES) Informal Consultation on the evaluation and testing of insecticides, held at WHO headquarters in Geneva, Switzerland, on 7–11 October 1996 (1). These were reviewed and recommended by the WHO Consultation on testing and evaluation of public health pesticides, held at WHO headquarters on 23–27 February 2009.

The guidelines provide guidance and procedures on laboratory studies, field trials and evaluation of technical material used in mosquito repellent products and on the methods used to determine their application rate(s) and effectiveness. Guidance is also provided on the single-dose evaluation of formulated repellent products. With some modification, the guidelines can be used to determine the repellency of candidate compounds for other flying insects that blood-feed on humans.

Detailed treatment and analysis of repellent safety and toxicity data are beyond the scope of these guidelines, and it is assumed that preliminary human safety assessments have been undertaken before the material(s) are applied to human skin. Any side-effects and/or undesirable characteristics experienced in association with the application and use of repellents in laboratory studies and field trials should be recorded and reported. The protocol must include provision for medical care and the reporting of adverse events.

Products submitted for laboratory studies and/or field trials should be accompanied by the Material Safety Data Sheet, the labelling recommendation and the manufacturer's certification that the product is within the company's manufacturing specifications for that product. Independent physical and chemical assessment may be required before initiating the efficacy studies.

Biological tests are subject to the variation that accompany living organisms. Studies should therefore be conducted under the close supervision of personnel familiar with biological testing of repellents and with sound scientific and experimental procedures; the principles of good laboratory practice or other suitable quality schemes such as the International Organization for Standardization should be applied.

Studies on repellents should be undertaken in accordance with the applicable national ethical regulations. WHO guidelines for development of an informed consent form are provided in Annex 1.

Table 1 summarizes the sequence of stages for evaluating technical grade repellent materials and single-dose formulations of repellent products applied to human skin for personal protection.

Table 1 Sequence of stages for evaluation of technical grade repellent materials and single-dose formulations of repellent products applied to human skin for personal protection

		Parameters measured	Analysis suggested
Technical grade	Laboratory	- effective dose	Probit-plane regression analysis
		- complete protection time	Kaplan–Meier survival analysis
	Field trials	<ul><li>median effective dose;</li><li>median effective time;</li><li>repellent half-life</li></ul>	Probit–plane regression analysis
		- complete protection time	Kaplan-Meier survival analysis
Formulated product	Laboratory Studies	- complete protection time	Kaplan–Meier survival analysis
	Field trials	- complete protection time	Kaplan–Meier survival analysis

#### 2. LABORATORY STUDIES

The objective of laboratory studies is to estimate the effective dose of a repellent and the complete protection time provided by a repellent after application on the skin.

The specific aims of these tests are:

to estimate dose-response lines and effective doses (EDs) of a repellent corresponding to 50% (ED<sub>50</sub>) and 99.9% (ED<sub>99.9</sub>) protection from mosquito landing and/or probing;1

to estimate the complete protection time (CPT) of a repellent, which is the time between the application of the repellent and the first mosquito landing and/or probing.

Deet (N.N-diethyl-3-methylbenzamide) is the active ingredient of most commercially-available repellents and is recommended as the positive control (usually 20% in ethanol) against which the effectiveness of alternative mosquito repellents is judged.

Testing of repellents on human subjects is the method of choice as it utilizes the repellent end-user in the testing process and yields results that are relevant to the actual conditions of use. Use of laboratory animals or artificial membranes may inadequately simulate the situation in which repellents for use on human skin are intended to perform. Tests are carried out on adult human volunteers who may be selected from among candidates exhibiting mild or no sensitivity to mosquito bites. Equal numbers of male and female test volunteers are preferred.

those mosquitoes that land may all bite. Both scenarios may be important in determining the efficacy of a repellent.

<sup>&</sup>lt;sup>1</sup> Landing and/or probing behaviour signifies the end-point of the repellent efficacy test. However, landing is not always associated with probing, and separate recordings of each behaviour may be needed. A repellent may provide efficacy by a reduction in biting activity but not in landing. Alternatively, it may provide efficacy in terms of landing, but

In preparation for the laboratory studies, the test area of the volunteer's skin should be washed with unscented soap and rinsed with water, then rinsed with a solution of 70% ethanol or isopropyl alcohol in water and dried with a towel. Given the possibility that various factors may alter a person's attractiveness to mosquitoes, and that this may in turn affect the outcome of repellency assays, test volunteers should avoid the use of fragrance and repellent products for 12 hours before and during testing. Volunteers should preferably not be tobacco users, or at least to have refrained from tobacco use for 12 hours prior to and during testing.

Standardized mosquito rearing and laboratory testing conditions are essential to ensure the reliability and reproducibility of data. Mosquitoes should be reared, maintained and tested (in a separate space or room) at 27 ± 2 C temperature, ≥80 ± 10% relative humidity, and a 12:12 (light:dark) photoperiod. Temperate mosquito species may require modifications to rearing conditions. Stock populations of adult mosquitoes should have access to sugar solution but not have been bloodfed. Observations of repellency should be made using female mosquitoes starved for the preceding 12 hours and, where practical, during times in the diel period that correspond with biting activity by that species.

Mosquito repellency tests should be conducted with three or more of the more anthropophilic Aedes (preferably Aedes aegypti), Culex (preferably Culex quinquefasciatus) and Anopheles (preferably An. stephensi, An. gambiae or An. albimanus) species. The test species, strain and age should be reported. Mosquitoes should be contained during testing using a cage (suggested metal frame for ease of decontamination, size: 35 –40 cm per side) with a solid bottom and top, screen or netting on the back, a clear acrylic sheet (for viewing) on the right and left sides, and a fabric sleeve for access on the front. Female mosquitoes should be collected from a stock population cage in which both sexes have been maintained to allow mating to occur. They should be host-seeking, of uniform age, preferably 5–7 days post-emergence (use different ages of mosquitoes when it is more suitable for a particular species and

justify such use in the study report). Active host-seeking females should be selected to ensure a good response from the test mosquitoes using an aspirator or an appropriate airflow apparatus.

#### 2.1 Estimation of effective dose (technical material)

Serial dilutions of repellent are made with ethanol or another suitable diluent and tested to identify an effective dose range. Dosages giving responses between 10% and 90% are used for this analysis, preferably 2–3 dosages that give <50% repellent response and 2–3 dosages that give >50%.

Each volunteer uses incremental doses on the test forearm so that at least five successive applications of increasing dose are used by each volunteer. A single test comprises continuous use of the same mosquitoes by the same volunteer and is completed in one day. Replicate tests repeat this process using different batches of mosquitoes over several days. It is recommended that a minimum of three replicates be conducted per volunteer, with the number of volunteers sufficient to allow for statistical analysis.

One mL of ethanol or the same diluent used in the preparation of the test repellent is applied evenly using a pipette to ≈600 cm<sup>2</sup> of the forearm skin between the wrist and elbow (Annex 2) and allowed to dry (approximately 1 min for ethanol). Before insertion of the arm into the cage containing 50-100 female mosquitoes, the hands are protected by gloves made of material through which the mosquitoes cannot bite. The first step is to insert the forearm applied with diluent into the cage and to count the number of mosquitoes that land on and/or commence to probe the skin during a 30-second period. During testing, the volunteer should avoid movement of the arm. For the test to proceed, the biting rate must be ≥10 landings and/or probings in the 30-second period. The control forearm is carefully withdrawn and this arm is then treated with the lowest dose of repellent in 1 mL diluent and allowed to dry. The treated arm is placed in the cage for another 30-second period and

observed for mosquito landings and/or probings. This procedure is repeated for each additional incremental repellent dose. Successive tests should be carried out one after the other without delay and the repellent dose at each test calculated as the sum of the doses applied to arrive at the cumulative dose for each test (Table 2).

Table 2 Example of successive doses applied to arrive at a cumulative dose for a sample experiment

Application sequence	Repellent solution concentration to be applied in 1 mL (mg/mL)	Cumulative amount of repellent (mg/600 cm² area)
Left-arm control	Pre-treated with alcohol <sup>a</sup> only	_
Left-arm dose 1	1	1
Left-arm dose 2	1	2
Left-arm dose 3	2	4
Left-arm dose 4	4	8
Left-arm dose 5	8	16
Right-arm control	Pre-treated with alcohol <sup>a</sup> only	-

<sup>&</sup>lt;sup>a</sup> Alcohol or the same diluent as that used in the preparation of the repellent solution.

If, at any time, the landing and/or probing rate is too high to accurately count the number of mosquitoes landing and/or commencing to probe the skin, the mean landing and/or probing rate for the test should be calculated from a series of three readings, each five seconds long, and the sum multiplied by two to estimate the landings and/or probings that would occur in a 30-second period. Testing should not proceed when the

mosquito landing and/or probing rate on the exposed forearm is <10 females in 30 seconds.

This procedure should be used consistently throughout the experiment. The trained volunteer will record the number of landings and/or probings. At the conclusion of the dose–response experiment, 1 mL alcohol/diluent is applied on the other forearm and allowed to dry. This forearm is inserted in the cage for 30-seconds to verify that the number of landings and/or probings is approximately ≥10 per 30 seconds, as was observed at the beginning of the experiment. If the rate is <10 females in 30 seconds, the results of this experiment should be discarded.

Protection (p) is expressed as a proportion of the number of mosquito landings and/or probings on the treated arm (T) in relation to the number of landings and/or probings on the control arm (C) of the same individual:

$$p = 1 - (T/C) = (C - T)/C$$
 (i)

where C is the average of the landings/probings on the two untreated arms (the diluent-applied test arm before repellent-treatment and the other arm at the end of the experiment). Data are analysed using probit-plane regression analysis from which the  $ED_{50}$  and  $ED_{99.9}$  and their confidence limits can be estimated (2).

# 2.2 Estimation of complete protection time (technical material and formulated product)

The complete protection time, or CPT, of a repellent can be determined in one of two ways. Preferably, the  $ED_{99.9}$  dose should be estimated using the procedures outlined in section 2.1; 1 mL of the repellent is then tested at the  $ED_{99.9}$  level against 1 mL of the standard 20% ethanolic deet. Alternatively, 1 mL of the 20% ethanolic deet solution can be compared with the same amount (weight/weight) of the candidate repellent on the other arm. In both cases, treatments are applied to

≈600 cm² area (Annex 2) of the forearm skin between the wrist and elbow.

Two mosquito cages (size: 35–40 cm per side) each containing 200–250 non-blood-fed females are normally used. One cage is designated for testing the candidate repellent and the other for the positive control (ethanolic deet). During testing, the hands are protected by gloves made of material through which the mosquitoes cannot bite while the volunteer avoids movement of the arm.

Initially, the readiness of mosquitoes to land and/or probe must be assessed by inserting an untreated (alcohol- or diluent-treated) arm into a cage for 30 seconds or until 10 landings/probings are counted. The procedure is repeated with the other arm in the second cage. If this level of landing and/or probing is not achieved in either cage, the experiment should be discarded.

Before testing commences, 1 mL of the candidate repellent prepared in alcohol/diluent solution is applied to one arm and 1 mL of the deet standard solution is applied to the other arm. After 30 minutes, the repellent-treated arm is inserted into the appropriate cage and exposed for 3 minutes to determine landing and/or probing activity. Next, the deet-applied arm is exposed to determine landing and/or probing activity. This procedure is repeated at 30- or 60-minute intervals and should be used consistently throughout the experiment. The occurrence of one landing and/or probing in a 3-minute test interval concludes the test for that repellent dose. Complete protection time is calculated as the number of minutes elapsed between the time of repellent application and the first mosquito landing and/or probing. Most repellent studies of technical material are completed in 8 hours or less.

The number of volunteers included in the test should be sufficient to allow for statistical analysis. The median CPT and confidence interval can be estimated from the Kaplan–Meier Survival Function (Annex 3).

#### 3. FIELD TRIALS

The objective of field trials is to extend the results of laboratory testing to estimate the optimum application dose, persistence and efficacy of a repellent material, in terms of repellency and protection time, against one or more mosquito vectors and/or pest species in different ecological and/or geographical settings. A minimum of two field tests are recommended, one each in different ecological and or geographical settings suitable for the target mosquito species where the human exposure occurs.

Assessment is made by human volunteers collecting mosquitoes landing and/or probing on one or more bare limbs (knee to ankle; elbow to wrist), depending upon the biting behaviour of the mosquito species. The volunteers should be: (i) from the same settings where the test is conducted, such that they are not exposed to unusual risk of infection; (ii) if appropriate and applicable, protected by chemoprophylaxis and/or vaccination; and/or (iii) where possible, at sites where there is no disease transmission but high abundance of target mosquito species.

The determination of proportional end-points of repellent efficacy and persistence is recommended. These allow concurrent estimation of EDs, effective period of time for a range of doses, repellent half-life and the CPT (3).

## 3.1 Efficacy and persistence of technical material

Collections are performed by volunteers skilled in the use of aspirators (blow-type or mechanical) or collecting tubes to catch all mosquitoes landing on an exposed limb before the mosquitoes commence to probe. Aspirated mosquitoes are transferred into holding cups that are labelled and changed every half-hour or, if collected in tubes, transferred to labelled holding cups that are changed every half-hour. Inclusion of equal numbers of male and female volunteers in the test is recommended

Human landing catches are performed during the period of biting activity of the target mosquito species and indoors and/or outdoors depending upon mosquito behaviour. Where targeted species have short duration of main biting activity, tests with repellent material should begin such that the expected endpoints as described above occur within the biting period of such species.

Volunteers should avoid using fragrance products 12 hours prior to and during the test. Volunteers should preferably not be tobacco users or at least have refrained from tobacco use for 12 hours prior to and during testing.

The surface area of the skin of the limbs of each volunteer is measured (Annex 2) and the volume of repellent material needed to treat the area at a specific dose is determined. To do this, the technical material is diluted in ethanol (or any other suitable diluent specified by the manufacturer) in sufficient quantities to remain effective for the duration of the study. The appropriate dose of test repellent should be applied uniformly to a limb of the volunteer using a pipette and allowed to dry before the start of the first collection period. A blind test, in which volunteers are not aware of the nature of the treatment, is preferred.

A negative control volunteer should be used in the test, to whom the corresponding volume of alcohol or a suitable diluent is applied to the skin in the same manner as the repellent treatment. A positive control (20% ethanolic deet) may also be used.

A preliminary assessment of the suitability of collection sites by performing human landing catches prior to the test is recommended to minimize variation in the number of mosquitoes landing and/or probing among sites. This will result in the selection of sites that yield the most homogeneous densities of mosquitoes and with suitable biting rates.

Within each collection site, volunteers should be placed singly and separated from each other by  $\geq$ 20 metres. A range of four

doses is recommended to be tested for each repellent and may be approximated from laboratory studies (see section 2.1). The doses are selected to produce a comprehensive range of protection rates at the end of the exposure period. Normally, the effective dose that provided 99.9% protection in laboratory studies is used as a guide to establish the dosages for field trials

A completely randomized design is used. The number of test volunteers and the number of collection sites are equal to the number of doses to be tested plus the untreated control. If a positive control (20% deet in ethanol) is used, an extra collection site and volunteer will be required. A single (1-day) test comprises rotation of each volunteer at random among all collection sites at 1-hour intervals (Table 3). Each treatment combination of dose, negative and/or positive control and volunteer should be tested for a suitable period on two or more dates. Replicate tests should each be similarly randomized. The mosquito collection at each collection site for the repellent treated volunteers and the negative and/or positive controls should be chosen to be suitable for the target species. For example, under high biting pressure, this could be one minute each beginning at minute 15, 30, and 45 into the observation period, with the first measurement in the initial hour of observation period (0-1 hours) starting at minute 15 (i.e. minute 15–16) after repellent application.

Mosquitoes landing and/or probing on the skin should be collected with an aspirator for accurate counting and species identification. Species composition should be reported. Tests should not be conducted in windy conditions, but records should be made throughout each test of wind speed, temperature, relative humidity and precipitation amount(s) for possible later consideration and/or analysis.

At the conclusion of the experiment, the number of mosquitoes collected within each observation period (i.e. at 15–16 min, 30–31 min and 45–46 min), at each dose, is averaged for each replicate.

<u>Protection (efficacy)</u> afforded by the repellent (p) at each test period and for each dose is calculated as:

$$p = 1 - (T/C) = (C-T)/C$$
 (ii)

where T is the number of mosquitoes collected from the treatment volunteer and C is the number of mosquitoes collected from the negative (or positive) control volunteer.

The <u>persistence</u> of the repellent efficacy is assessed by the <u>median effective dose</u> ( $ED_{50}$ ) and the repellent half-life. These end-points are estimated by fitting the data to a probit–plane regression model, which relates the protection afforded by the repellent to the test period and the natural logarithm (ln) of the dose of repellent applied:

$$\ln [p / (1 - p)] = a + b_1(D_0) + b_2t_1$$
 (iii)

where p is the protection afforded by the repellent,  $D_0$  is the dose calculated as the natural logarithm of the dose applied (In [dose]), t is the time post-treatment in hours and a,  $b_1$  and  $b_2$  are coefficients estimated using the probit—plane regression model.

The ED<sub>50</sub> corresponds to the application dose providing 50% protection (p = 0.5) at the time of repellent application (t = 0). Taking the value of 0.5 for p and 0 for t in equation iii (above), and solving for  $D_0$ , provides an estimate of the ED<sub>50</sub> (see Example A).

Other percentiles can be estimated by setting t=0 and calculating p for a specific application dose. For example, to estimate the ED<sub>90</sub> using the coefficients provided in Example A (above), put t=0 and p=0.90 in equation iii and calculate (see Example B).

The <u>median effective time</u> (ET<sub>50</sub>) and other percentiles, such as the ET<sub>99</sub> (see Example C), for a specified application dose ( $D_0$ ) can also be estimated from equation iii.

The <u>repellent half-life</u> can be estimated using equation iii as under:

$$ln [1 / 2]b_1 / b_2$$
 (iv)

The <u>complete protection time</u> for a given dose is estimated from the time elapsed up to the first mosquito landing and/or probing in each replicate. The median CPT and its confidence interval can be estimated using the Kaplan–Meier survivor function procedure (see Annex 3).

Table 3 Example of the allocation of four doses (D) of the candidate repellent, a negative control (CN) and a positive control (CP) to six volunteers (V) among six collection sites in a completely randomized design

Beginning of	Obcorrection period (hours) <sup>2</sup>			Collection sites	on sites		
(hours)	Observation penda (nodrs)	1	2	က	4	5	9
0	0–1	V5CN	V4D4	V6D2	V1D3	V2CP	V3D1
~	1–2	V4D4	V6D3	V5D1	V2D2	V1CN	V3CP
7	2–3	V2D1	V4CN	V1D4	V3D2	V6CP	V5D3
က	3-4	V1D2	V5CN	V2D3	V6D1	V4D4	V3CP
4	4–5	V2D3	V5CN	V1D1	V6D2	V3D4	V4CP
2	2–6	V4CP	V3D2	V5D4	V2D3	V1CN	V6D1
9	2-9	V4D1	V3D3	V5D2	V2CN	V6CP	V1D4

<sup>&</sup>lt;sup>2</sup> In this example, within each observation period, three measurements (at 15, 30 and 45 minutes) are taken at each collection

Table 3 (continued) Example of the allocation of four doses (D) of the candidate repellent, a negative control (CM) and a positive control (CP) to six volunteers (V) among six collection sites in a completely randomized design

Beginning of				Collection sites	on sites		
(hours)	Observation period (nodis)	1	2	က	4	5	9
7	7–8	V1CN	V1CN V2D1 V4D2	V4D2	V6D3 V	V5D4 V3CP	V3CP
<sub>∞</sub>	8-6	V5D4	V4D1	V3D2	V1D3	V6CN	V2CP
6	9–10	V3D2		V6CN V5CP V1D3	V1D3	V2D4 V4D1	V4D1

<sup>3</sup> In this example, within each observation period, three measurements (at 15, 30 and 45 minutes) are taken at each collection

# Example A

The following coefficients were estimated using the probit—plane regression model based on protection against *Anopheles gambiae s.l.* by deet (4):

$$a = 8.160$$
  
 $b_1 = 2.209$   
 $b_2 = -0.532$ .

### The ED<sub>50</sub> is calculated as:

```
(1)
                   \ln [p/(1-p)] = a + b_1(D_0) + b_2t_1
                   \ln \left[0.5/(1-0.5)\right] = 8.160 + 2.209(D_0) + -0.532(0)
(2)
                   \ln (1) = 8.160 + 2.209(D_0) + 0
(3)
(4)
                   \ln (1) = 0 = 8.160 + 2.209(D_0)
                   -8.160/2.209 = D_0
(5)
(6)
                   -3.694 = D_0
                   In (ED_{50}) = D_0
(7)
                   ED_{50} = exp(D_0)

ED_{50} = 2.7183^{(-3.694)}
(8)
(9)
                   ED_{50} = 0.025 \text{ mg/cm}^2
(10)
```

# Example B

# The ED<sub>90</sub> is calculated as:

```
(1)
                  \ln [p/(1-p)] = a + b_1(D_0) + b_2t_1
                  \ln [0.9/(1-0.9)] = 8.160 + 2.209 (D_0) + -0.532 (0)
(2)
(3)
                  \ln [9.0] = 8.160 + 2.209 (D_0)
(4)
                  2.197 - 8.160 = 2.209 (D_0)
                  -5.963 = 2.209 (D_0)
(5)
                  -5.963/2.209 = D_0
(6)
(7)
                  -2.699 = D_0
                  In (ED_{90}) = D_0
(8)
                  ED_{90} = exp(D_0)

ED_{90} = 2.7183^{(-2.699)}
(9)
(10)
                  ED_{90} = 0.067 \text{ mg/cm}^2
(11)
```

### **Example C**

A volunteer applies a dose of 0.50 mg/cm<sup>2</sup> to the arm (i.e.  $D_0 = \ln [0.50] \text{ mg/cm}^2$ ). Determine the ET<sub>99</sub> (using the same coefficients as provided in Example A):

```
(1) \ln [p/(1-p)] = a + b_1(D_0) + b_2t

(2) \ln [0.99/(1.00 - 0.99] = a + b_1(D_0) + b_2t

(3) \ln (99) - 8.160 - (2.209 \times -0.693) = (-0.532)t

(4) 4.595 - 8.160 - (11.531) = -0.532t

(5) -2.034 = -0.532t

(6) t = (-2.034/-0.532) = 3.8 hours after application
```

### 3.2 Efficacy and persistence of formulated products

The single-dose evaluation of formulated repellent products should be performed under field conditions at a minimum of two ecologically and geographically distinct locations. A preliminary assessment of collection sites by performing human landing catches prior to the test is recommended to minimize variation in the number of mosquitoes collected among such sites. This will include a selection of sites that yield the most homogeneous densities of mosquitoes and with suitable biting rates. The appropriate number of volunteers trained in mosquito aspiration will be required for the study, including individuals serving as positive controls and individuals serving as untreated test subjects (for ongoing monitoring of mosquito biting pressure). A minimum number of volunteers necessary to demonstrate statistical significance should only be included in the testing for ethical reasons.

In a single (1-day) test, at location 1, the study investigator should apply the formulated product to an exposed limb of each volunteer at the rate of 1 mL of formulated product (or 1 mL of 20% deet in ethanol for the positive control) on ≈600 cm² area. The limb is allowed to dry and the time recorded of application to each volunteer. Volunteers are individually assigned at random to collection sites arranged ≥20 metres apart. The

exposure time to mosquito populations at each collection site for the repellent treated volunteers and the positive control should be chosen to be suitable for the target species. For example, under high biting pressure, this could be 1-minute each at 15, 30 and 45 minutes into the observation period, with the first measurement in the initial observation period (0–1 hours) starting at minute 15 (i.e. minute 15–16) after repellent application. A suitable number of additional volunteers (untreated) should monitor biting pressure throughout the study. All mosquitoes landing on the exposed limb of each volunteer are collected by aspiration and transferred to a holding container for later counting and species identification. A single (1-day) test comprises rotation of each test volunteer, the positive control and an untreated control at random among all collection sites at 1-hour intervals.

Human landing catches should be performed during the period of biting activity of the target mosquito species. This may require treatment with repellent well in advance to ensure the expected end-point occurs within the biting period of the target species. The study should be otherwise conducted until the time to first landing and/or probing by a mosquito on a volunteer. Complete protection time is calculated as the number of minutes elapsed between the time of repellent application and the first mosquito landing and/or probing. The resulting data can be analysed using the Kaplan–Meier survivor function (Annex 3) and the median CPT and corresponding standard errors reported.

Percentage repellency (%p) in field trials can be determined for each hour of the test as:

$$%p = ((C - T) / C) \times 100$$
 (v)

Where T is the average number of mosquitoes collected from the treatment volunteer(s) in a given hour of a test and C is the average number of mosquitoes collected from the untreated or positive control volunteer in the same hour of the test. The calculation is repeated for each hour to result in a profile of hourly change in % repellency over the 12-hour test period.

#### 4. REFERENCES

- 1. Report of the WHO informal consultation on the evaluation and testing of insecticides. WHO, Geneva, 7–11 October 1996. Geneva, World Health Organization, 1996 (CTD/WHOPES/IC/96.1).
- 2. Rutledge LC. Mathematical models of the effectiveness and persistence of mosquito repellents. *Journal of the American Mosquito Control Association*, 1985, 1:56–62.
- 3. Rutledge LC et al. Efficacy of diethyl methylbenzamide (deet) against *Aedes dorsalis* and a comparison of two end points for protection time. *Journal of the American Mosquito Control Association*, 1989, 5:363–368.
- Costantini C et al. Field evaluation of the efficacy and persistence of insect repellents DEET, IR3535, and KBR 3023 against *Anopheles gambiae* complex and other Afrotropical vector mosquitoes. *Transactions of the Royal Society of Tropical Medicine and Hygiene*, 2004, 98:644–652.

# ANNEX 1. GUIDELINES FOR DEVELOPMENT OF THE INFORMED CONSENT FORM

For: [name the group of individuals for whom this consent is written]

Name of principal investigator:

Name of organization:

Name of sponsor:

Name of proposal:

#### **PART I: Information sheet**

# This sheet is a suggestion or example that can be modified according to the national rules and guidelines

#### 1. Introduction

State briefly who you are and explain to the participants that you are inviting them to take part in research that you are doing.

#### 2. Purpose of the research

Explain in lay terms why you are doing the research.

#### 3. Type of research intervention

State briefly the type of intervention that will be undertaken.

#### 4. Participant selection

State why this participant has been chosen for this research (adult males and females will preferably be recruited among the inhabitants of the study site, after having announced in the district, through oral advertisements, that the project is looking for volunteers. The selection will ensure that equal opportunities are provided to everybody. Report how many volunteers are expected to participate in the study. Criteria for inclusion and exclusion of volunteers needs to be reported.

#### 5. Voluntary participation

Indicate clearly that volunteers can choose to participate or not. State that they will still receive all the services they usually do whether they choose to participate or not.

#### 6. Information on the repellent [name of the repellent]

Explain to the participant why you are testing a repellent product. Provide as much information as is appropriate and understandable about the repellent product, such as its manufacturer or location of manufacture, and the reason for its development. Explain the known experience with this repellent product. Explain comprehensively, if any, all the known side-effects or toxicity of this repellent product.

#### 7. Participant protection against malaria or other vectorborne diseases

Explain to each participant the safeguards that will be provided (e.g. chemoprophylaxis, where relevant) to protect them from malaria or other vector-borne diseases and, if necessary, their treatment.

# 8. Description of the process, procedures and protocol Describe or explain to the participant the exact procedures that will be

Describe or explain to the participant the exact procedures that will be followed on a step-by-step basis and the tests that will be done.

#### 9. Duration

Include a statement about the time commitments of the research for the participant, including the duration of the research and volunteer follow-up.

#### 10. Side-effects

Potential participants should be told if there are any known or anticipated side-effects and what will happen in the event of a side-effect or an unexpected event. State who will provide medical care should a volunteer be injured in the study, and who will provide funds for treatment.

#### 11. Risks

Explain and describe any possible or anticipated risks. Describe the level of care that will be available in the event that harm does occur, who will provide it and who will pay for it.

#### 12. Discomforts

Explain and describe the type and source of any anticipated discomforts that are in addition to the side-effects and risks discussed above.

#### 13. Benefits

Mention only those activities that will be actual benefits (as an additional protection from mosquito bites) and not those to which they are entitled regardless of participation.

#### 14. Incentives

State clearly what you will provide the participants with as a result of their participation. WHO does not encourage incentives. However, it recommends that reimbursements for expenses incurred as a result of participation in the research be provided.

#### 15. Confidentiality

Explain how the research team will maintain the confidentiality of data, especially with respect to the information about the participant, which would otherwise be known only to the Principal Investigator/physician but would now be available to the entire research team. State any other groups that will have access to individually identifiable information collected in this study.

#### 16. Sharing the results

Where relevant, your plan for sharing the findings with the participants should be provided.

#### 17. Right to refuse or withdraw

This is a reconfirmation that participation is voluntary and includes the right to withdraw.

#### 18. Whom to contact

Provide the name and contact information of someone who is involved, informed and accessible (a local person who can actually be contacted). State also that the proposal has been approved, and how.

This proposal has been reviewed and approved by [name of the local ethical committee], whose task is to make sure that research participants are protected from harm. If you wish to find out about more the Local Ethical Committee, please contact [name, address and telephone number].

#### Part II: Certificate of Consent

This section can be written in the first person. It should include a few brief statements about the research and be followed by a statement similar to the one in bold below. If the participant is illiterate but gives oral consent, a witness must sign. A researcher or the person checking the informed consent must sign each consent form.

I have read the foregoing information, or it has been read to me. I have had the opportunity to ask questions about it, and any questions that I have asked have been answered to my satisfaction. I consent voluntarily to participate as a participant in this research and understand that I have the right to withdraw from the research at any time without in any way affecting my medical care.

Print name of participant:

Signature of participant:	
Date: day / month / year	
day / month / year	
If illiterate A literate witness must sign (if possible, this p selected by the participant and should have r the research team).	
I have witnessed the accurate reading of the to the potential participant, and the individe opportunity to ask questions. I confirm that has given consent freely.	ual has had the
Print name of witness: Thumb print of participant	AND

Signature of witness:
Date:day / month / year
I have accurately read or witnessed the accurate reading of the consent form to the potential participant, and the individual has had the opportunity to ask questions. I confirm that the individual has given consent freely.
Print name of researcher:
Signature of researcher:
Date: day / month / year
A copy of this Informed Consent Form has been provided to participant (initialled by the researcher/assistant)

# ANNEX 2. MEASUREMENT OF THE SURFACE AREA OF THE SKIN OF LIMBS

The surface area of skin used on a limb for repellent testing can be approximated on the basis of the surface area of a cylinder. Three dimensions are required for this purpose: the length of the treatment area, and the circumference of the limb at the proximal and distal boundaries of the treatment area.

The repellent should be applied evenly over the total surface area around the arm from wrist to elbow (A). The treatment area can be approximated by measuring the circumference (cm) of the wrist (B), the circumference (cm) at the elbow-cubital fossa (C) when the arm is extended, and the distance (cm) from the elbow to the wrist (D) (Figure 1).

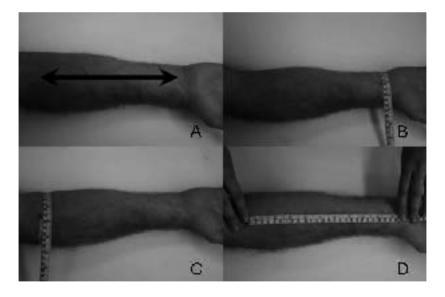


Figure 1. Treated area (A) and estimation of forearm surface area by measurement of circumference of wrist (B), elbow cubital fossa (C) and length of arm (D)

The surface area (in cm<sup>2</sup>) of skin is then calculated by:

Area= 
$$\frac{1}{2}$$
 (c<sub>w</sub> + c<sub>e</sub>) D<sub>we</sub> (iv)

where  $c_w$  is the circumference of the wrist in cm,  $c_e$  is the elbow-cubital fossa circumference in cm, and  $D_{we}$  is the distance in cm between  $c_e$  and  $c_w$ .

#### Example:

A repellent study is conducted using the arm. For the volunteer, the researcher measures the circumference of the wrist as 18 cm and an elbow region circumference of 27 cm, where the treatment area ends. The distance from wrist to elbow-cubital fossa is measured as 26 cm. Using the equation above:

Area =  $\frac{1}{2}$  (18 cm + 27 cm) x 26 cm

Area =  $\frac{1}{2}$  (45 cm) x 26 cm

Area = 22.5 cm x 26 cm

Area =  $585 \text{ cm}^2$ 

# ANNEX 3. ESTIMATION OF MEDIAN AND CONFIDENCE INTERVAL OF COMPLETE PROTECTION TIME USING

THE KAPLAN- MEIER SURVIVOR FUNCTION

determined. The data required for this purpose are:

The Kaplan–Meier function is a non-parametric statistic that can be used to calculate the median complete protection time (CPT) of a repellent and its corresponding confidence interval. To do this, the CPT "survivor function", which is based on the complete protection times recorded during testing, must be

The CPT in minutes (t) for each replication (i) of a test with n replications (i.e.  $t_i$  [i = 1, 2, ... n]).

The number of replications (r) of the test sharing the same CPT (j) (where  $r \le n$  (i.e., tj [j = 1, 2, ..., r])).

The number of replications of the test not sharing the same CPTs (i.e. [n - r]).

To construct the table of survivor function estimates, the  $t_j$  times are arranged in ascending order. For each  $t_j$ , there will be  $n_j$  observations with a CPT greater than  $t_j$ . The number of repellent failures (CPTs) recorded between the time interval  $t_j$  and  $t_{j+1}$  is denoted by  $d_j$ . The Kaplan–Meier statistic (S(t)) estimates the probability of survival (or, inversely, the time to repellent failure) through this interval as  $(n_j - d_j)/(n_j)$ . The standard error of the survivor function estimate at time t is designated as  $s.e.\{S(t)\}$ .

The median complete protection time t(50) is that beyond which 50% of the CPTs are recorded (i.e.  $S\{t(50)\} = 0.5$ ). The estimated median CPT is the smallest observed CPT for which  $S(t) \le 0.5$ . The 95% confidence interval of this estimate is given by:  $t(50) \pm 1.96$  s.e. $\{t(50)\}$ .

## Example

In a hypothetical 10-hour test of the efficacy of a repellent applied on human skin, CPTs were recorded in 48 replications (Table 1). In 11 of the replications, no landings and/or probings

were received prior to the end of the study period (10 hours) and the CPT for these 11 replications is unknown.

Table 1 Summary of the frequency of complete protection time (CPT) of a candidate repellent applied on human skin

CPT	120	150	210	390	420	450	480	510	600
(min)									
Frequency	1	3	3	10	7	4	4	2	3
$(d_i)$									

Using the data from this test, estimates of  $(n_j - d_j)/n_j$  and S(t) and their corresponding standard error are constructed, as presented in Table 2.

Table 2 Estimates of  $(n_j - d_j)/n_j$  and S(t) and their corresponding standard error<sup>4</sup>

Time interval (t <sub>i</sub> ) in min	nj	dj	$(n_j - d_j)/n_j$	S(t)	Standard error S(t)
0-	48	0	1.0000	1.0000	0.0000
120-	47	1	0.9787	0.9787	0.0210
150-	44	3	0.9318	0.9120	0.0420
210-	41	3	0.9268	0.8453	0.0538
390-	31	10	0.6774	0.5726	0.0798
420-	24	7	0.7083	0.4056	0.0776
450-	20	4	0.8000	0.3245	0.0719
480-	16	4	0.7500	0.2434	0.0643
510-	14	2	0.8571	0.2086	0.0597
600	11	3	0.7273	0.1517	0.0516

<sup>&</sup>lt;sup>4</sup> Data processing software for calculation of these variables is available on the Internet. Search key word: Kaplan Meier survival function online calculator.

Median complete protection time is the smallest CPT for which  $S(t) \le 0.5$ . In this case, at  $t_j = 390$ , S(t) = 0.5726, and at  $t_j = 420$ , S(t) = 0.4056. Our best estimate of the median CPT in this example is t(50) = 420 min.

<u>To calculate the 95% confidence interval</u> we set  $S\{upper(50)\} = 390$  and  $S\{lower(50)\} = 420$ . The probability density function at t(50) is estimated as:

$$f\{t(50)\} = \frac{S(390) - S(420)}{420 - 390} = \frac{0.5726 - 0.4056}{30} = 0.005567$$

The standard error of the survivor function at t(50) is 0.0776 and the standard error of the median CPT is estimated by:

$$se.\{t(50)\} = \frac{1}{0.005567} \times 0.0776 = 13.94$$

The 95% confidence interval for the estimated median CPT for the repellent in this example has boundaries of  $420 \pm 1.96$  13.94 minutes. On this basis, in 95 out of 100 observations, we would expect the median CPT to lie between 393 to 447 minutes.

	Page 1
1	IN THE UNITED STATES DISTRICT COURT
2	SOUTHERN DISTRICT OF NEW YORK
3	
4	NICHOLAS PARKER, on behalf
	of himself and all others
5	similarly situated,
	Plaintiffs,
6	
	v. Civil Action No.
7	17-cv-5353-GBD
	UNITED INDUSTRIES CORPORATION,
8	Defendant.
9	~~~~~~~~~~
10	Videotaped 30(b)(6) Deposition of
11	DEFENDANT UNITED INDUSTRIES CORPORATION
12	(Witness: STEVEN SCHWALLIE)
13	
14	(Volume I, Non-Confidential Section)
15	Pages 1 - 33
16	December 19, 2018
17	1:18 P.M.
18	
19	Taken at:
20	Gore/Perry Veritext
21	515 Olive Street, Suite 300
22	St. Louis, Missouri
23	
24	Reported by:
25	J. Bryan Jordan, CCR-MO

Page 19

contain DEET alternatives. The awareness study shows attitudes of consumers towards DEET and the benefits and drawbacks that that might require that would then, again, help us to develop better products for them.

Q. So the document in front of you is Bates

- Q. So the document in front of you is Bates labeled 50 through 52. First of all, do you have Exhibit 10 in front of you?
  - A. I do.
  - Q. Have you seen it before?
- A. I have.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

2.0

21

2.2

2.3

24

2.5

- O. What is it?
- A. This is the front label, and it looks like the following pages are the complete label of the--one of the products.
  - Q. And what about on page 52?
- A. So this is also another label. I think this one might be the aerosol, but I'm not sure.
  - Q. Okay. So what is--what is this product?
  - A. This product is a mosquito repellent.
- Q. So would it be accurate to say that its core purpose or function is to repel mosquitoes?
  - A. That's correct.
- Q. If, hypothetically, this product did not repel mosquitoes, would there be any reason to buy it?

  MS. SCHMELZ: Object to form; calls for

Veritext Legal Solutions

www.veritext.com

888-391-3376

Page 20 1 speculation, lacks foundation. BY MR. LESLIE: 3 0. (Continuing) You can answer. Um, the purpose is to repel mosquitoes, so 4 5 if it did not repel mosquitoes, no, it would not 6 exist. 7 So looking at page 50, can you tell me what the active ingredients are? 8 9 Α. The active ingredients are geraniol, soybean 10 oil, sodium laurel sulfate, potassium sorbate. 11 And looking at 52, which appears to be the 12 aerosol version of the same product, can you tell me 13 what those active ingredients are? 14 Geraniol, soybean oil. Α. 15 Ο. I'd like to direct your attention, and I 16 apologize because it's printed double-sided, and I'm 17 going to be going back and forth between 50 and 52, but I'd like to direct your attention to page 50. In 18 19 the center, we see an orange rectangle. Inside of 2.0 that rectangle, we have the words "Repels mosquitoes 21 for hours" and "Repels mosquitoes" on bold lettering. 2.2 Do you see that? 2.3 Α. Yes. 24 Is that one of the products it claims? Ο. 2.5 MS. SCHMELZ: Object to form.

Page 24 thing? 1 They are different, and I don't know for 2 sure. I don't know the tenure of the people that I 3 work with today. 4 5 Understood. Going back to the "Repels mosquitoes for hours" claim, would you agree that it's 6 7 a representation about the product? Α. Yes. 8 And that it's a promise, essentially, about 9 one of the product's characteristics; correct? 10 11 MS. SCHMELZ: Object to form. 12 Α. Yes. 13 BY MR. LESLIE: Looking below that claim, do you see 14 Ο. 15 "Protection for the entire family"? Who wrote that 16 claim? So again, that would have come from Bates 17 research, from an attitude and usage study that we 18 19 would then want to work with our project teams, including R&D, Legal and Regulatory, to develop a 20 formula that would meet that claim, knowing that 21 22 consumers are looking for that type of benefit. Backing up one moment to the "Repels 2.3 Ο. 24 mosquitoes for hour" claim, "hours" claim, was there any research regarding consumer interpretation of that 25

Page 26 knowing that the attitude and usage study that I saw 1 lists different options, different hours, different 2 3 ways of saying it, that that was probably sufficient to ask the question of R&D what types of claims could 4 5 we achieve in a DEET-free formula. BY MR. LESLIE: 6 7 Do you know if United Industries Corporation Ο. has ever interviewed consumers about how they would 8 9 interpret the "Repels mosquitoes for hours" claim? 10 Α. I'm not aware. How about a focus group? 11 Ο. 12 I don't remember seeing anything. Α. 13 Q. Have you spoken to a consumer about what his or her understanding of that claim would be? 14 15 Α. No. Do you know when Cutter Natural Insect 16 Ο. Repellent first launched? 17 I think it was 2011. 18 Α. And do you know when the aerosol version 19 first launched? 2.0 21 It was a year or two later. Going back to the "Repels mosquitoes for 2.2. hours" claim, was that claim on the products at all 2.3 24 times from at launch date, which you mentioned was

25

2011, until present?

Page 27 Α. Yes. 1 Directly underneath it, we see "Protection 2. Q. for the entire family." Was that claim on Cutter 3 Natural Insect Repellent from its launch date to the 4 present? 5 6 Α. Yes. 7 Directly underneath that, we see it says, "DEET free." Was that claim on the product from its 8 9 launch date in 2011 to the present? 10 Α. Yes. And for all three of those claims, is the 11 12 same true with respect to the aerosol label, as well? 13 Α. Yes. So every customer who purchased Cutter 14 15 Natural Insect Repellant was exposed to these claims; 16 correct? 17 Α. Yes. Okay, and is that true no matter where it 18 was sold? For instance, whether someone bought it in 19 20 New York, or California, or Arkansas, --21 Α. Yes. 2.2 Q. --it would not matter; correct? 23 Α. Yes. Understood, and so on page 52, with respect 24 Q. to the "Repels mosquitoes for hours" claim, the 25

Page 28

"Protection for the entire family" claim, and the

"DEET-free" claim, those claims have also been on the

aerosol packaging since its launch; correct?

A. Yes.

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

2.2.

2.3

24

25

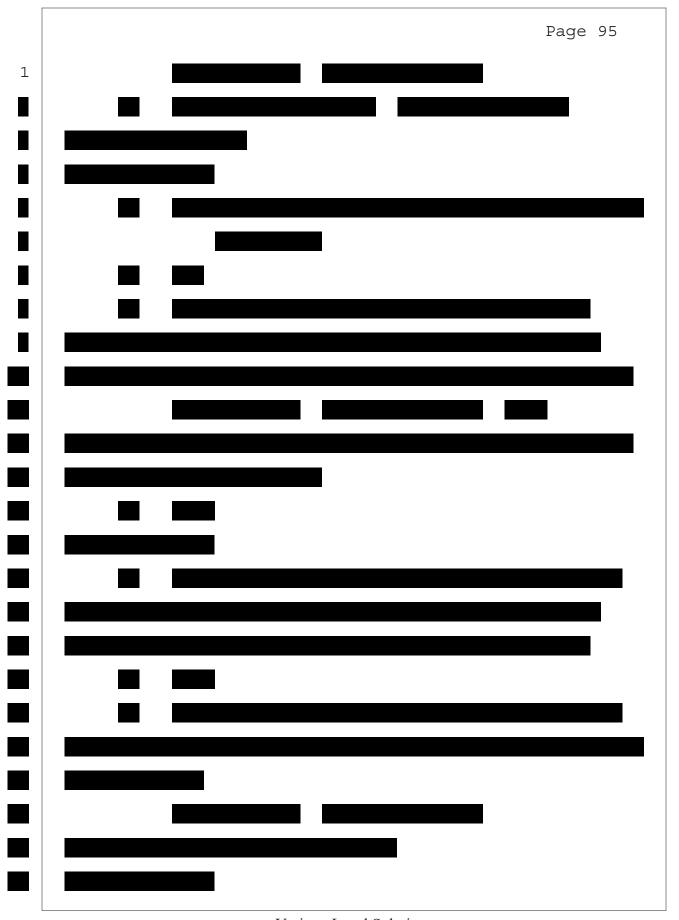
- Q. I'd like to direct your attention to page 51 of the packaging. At the very top, we see the representation, "Cutter Natural is a line of insect repellants that offer protection for the entire family. The formula for Cutter Natural Insect Repellent, which includes a natural active ingredient, has been tested to ensure it is effective against mosquitoes. Cutter Natural -- repelling insects the natural way." Do you see that?
  - A. Yes.
- Q. From Cutter Natural's launch date to the present, has that claim appeared on the back of the product's labeling?
  - A. Yes.
- Q. And is that true with respect to the aerosol product, as well?
  - A. Yes.
- Q. On 51, directly below the statement that I just read, it says, "Cutter Natural Insect Repellent keeps mosquitoes away from you and your family for up to two hours." Has that claim appeared on the back

Page 29 labeling of Cutter Natural Insect Repellant from its 1 launch date to the present? 3 Α. Yes. And turning to page 52, same question with 4 5 respect to the aerosol product. Has it appeared on the product's labeling from its launch date until the 6 7 present? Α. Yes. 8 9 I want to focus your attention to the 10 directions for use. Do you know if the directions have ever changed from its launch date to the present? 11 12 I do not believe there's been any change in the directions for use. 13 Okay, so in that directions for use 14 15 paragraph, there is a sentence that says, "Reapply 16 every two hours or as needed." Based on your previous 17 answer, is it correct to say that that sentence, 18 "Reapply every two hours or as needed," has appeared 19 on the product's labeling from the launch date at the present? 20 21 Α. Yes. 2.2. Q. And is the same true with respect to the aerosol product? 2.3 24 Α. Yes. (Sound of construction noise outside 2.5

Page 30 the building.) 1 2 MR. LESLIE: Sorry about the noise. BY MR. LESLIE: 3 Can you think of any significant changes 4 Ο. 5 that occurred in Cutter Natural Insect Repellent's labeling from its launch date to the present? 6 7 The only changes that were made were in terms of updating the look based on current Cutter 8 9 design. There were no copy changes. 10 Ο. And what does it mean to be a copy change? 11 Α. So any kind of the copy of the words. 12 So the words stayed the same, they may have Ο. 13 been altered slightly in their appearance? We're talking the same words staying on the labeling from --14 15 Α. Yes. 16 --from its launching to the present? Ο. 17 Okay? Speaking generally, what is the purpose of 18 the claims made on a product's packaging? 19 MS. SCHMELZ: Object to form; calls for 2.0 21 speculation, lacks foundation. Go ahead. The claim on a package helps the consumer 2.2. Α. understand the principal benefits of the product and 2.3 24 why you might be interested in purchasing or using it. Would one purpose of claims made on the 2.5 Q.

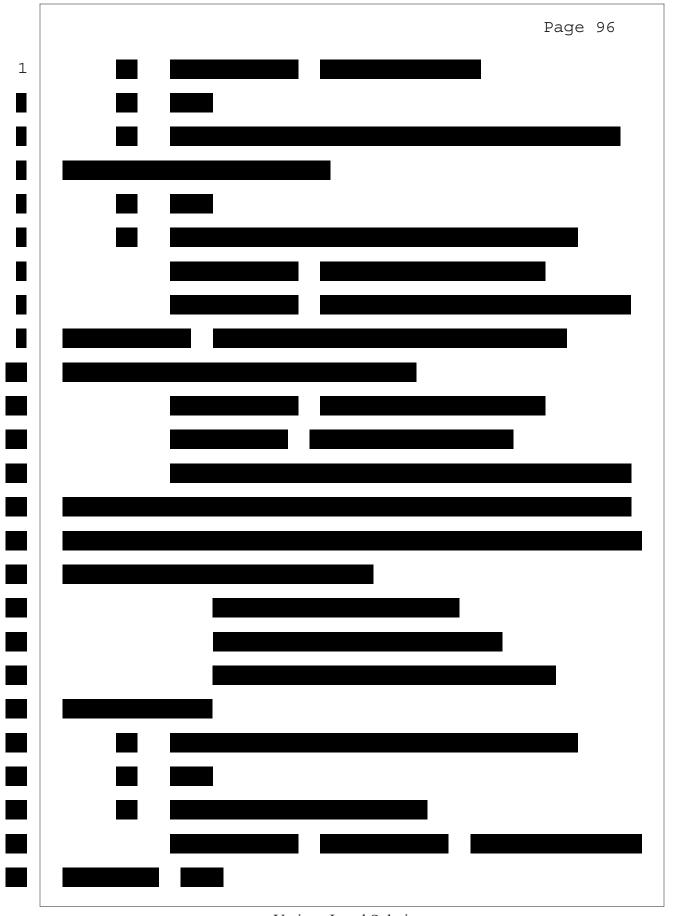
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 107 of 156

# HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER



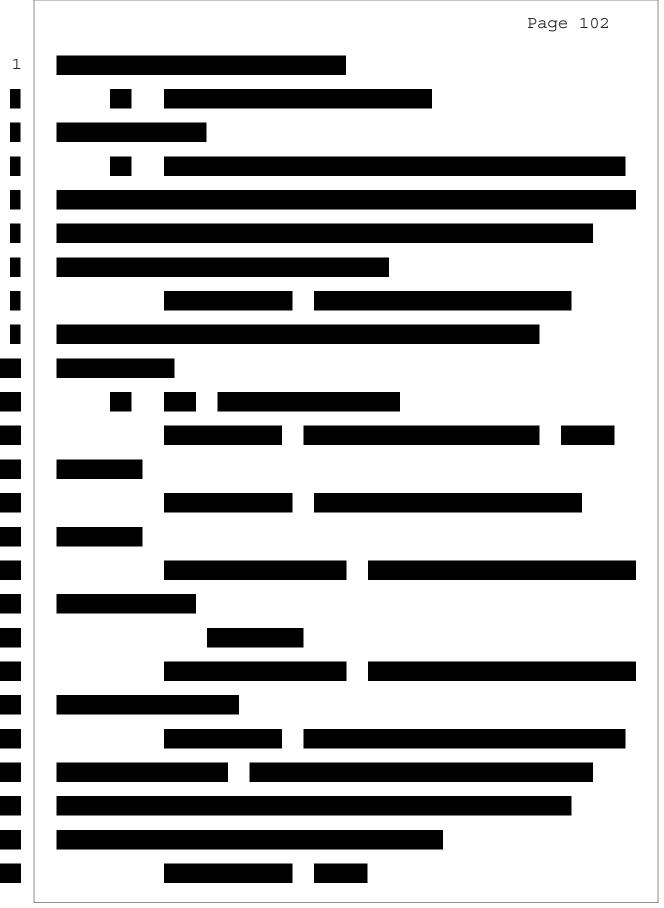
# Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 108 of 156

# HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER



### Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 109 of 156

### HIGHLY CONFIDENTIAL - SUBJECT TO PROTECTIVE ORDER



Ronald Edward Cardoza, Thursday, November 29, 2018

## IN THE UNITED STATES DISTRICT FOR THE SOUTHERN DISTRICT OF NEW YORK

VIDEOTAPED DEPOSITION

OF

RONALD EDWARD CARDOZA

(Confidential Portion, Pages 104-186)

Thursday, November 29, 2018

Fresno, California

Reported by: B. Suzanne Hull, CSR No. 13495

```
37
10:20:43
        1
                    MS. SCHMELZ:
                                    Object to form.
10:20:43
        2
                    THE WITNESS:
                                    He may have.
                                                    I'm not sure.
10:20:46
          They -- they were work- -- my research was doing work
10:20:50
          with United Industries before I ever started, you
10:20:53
          know, fifteen years later.
10:20:54
          BY MR. KOPEL:
10:20:54
        7
                0.
                    Right.
10:20:54
                    And is it -- is it your understanding that
        8
10:20:56
           this protocol was written by S.C. Johnson?
10:21:00 10
                Α.
                     I believe so.
10:21:01 11
                             I -- I mentioned before --
                0.
10:21:06 12
                    You said it.
                Α.
10:21:06 13
                     -- about emergency --
                Q.
                    You warned us about that.
10:21:07 14
                Α.
10:21:09 15
                    Yeah.
                Q.
10:21:10 16
                    Do you know if you have ever performed
10:21:15 17
          arm-in-cage testing that was later sent to the EPA?
10:21:20
                    I'm not sure. I don't -- I'm not aware.
      18
                Α.
10:21:24 19
                    Do you know if you ever performed
                Q.
10:21:27 20
          arm-in-cage testing with the intended purpose of --
          of providing it to the EPA?
10:21:31 21
10:21:33 22
                    MS. SCHMELZ:
                                    Object to form.
10:21:34 23
                                    I don't believe so.
                    THE WITNESS:
                                                            I know
          that they were never GLP, which typically is -- is
10:21:36 24
10:21:40 25
          what they would classify a study to -- if they wanted
```

Case 1:17-cv-05353-GBD Dearking of United Fine distribution Page 119 of 156 Ronald Edward Cardoza, Thursday, November 29, 2018 152 Case 1:17-cv-05353-GBD Dearwine interval who the Cardoza, Thursday, November 29, 2018 153

## Case 1:17-cv-05353-GBD Dearwine Natural Cardoza, Thursday, November 29, 2018

	159
	_
	•

## Case 1:17-cv-05353-GBD Dearker vitualite Fine distribution Page 122 of 156 Ronald Edward Cardoza, Thursday, November 29, 2018

176

Case 1:17-cv-05353-GBD Dearwine Natural Cardoza, Thursday, November 29, 2018 177

## EXPRESS WARRANTY MULTI-STATE CLASS STATE LAW REQUIREMENTS

State	Warranty Authorities	Warranty Language
Alaska	Alaska Stat. §45.02.313	<ul> <li>(a) Express warranties by the seller are created as follows:</li> <li>(1) an affirmation of fact or promise made by the seller to the buyer that relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise;</li> <li>(2) a description of the goods that is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description;</li> <li>(3) a sample or model that is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(b) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that the seller have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion of commendation of the goods does not create a warranty.</li> </ul>
California	Cal. Civ. Code § 1791.2	<ul> <li>(a) "Express warranty" means:</li> <li>(1) A written statement arising out of a sale to the consumer of a consumer good pursuant to which the manufacturer, distributor, or retailer undertakes to preserve or maintain the utility or performance of the consumer good or provide compensation if there is a failure in utility or performance; or</li> <li>(2) In the event of any sample or model, that the whole of the goods conforms to such sample or model.</li> <li>(b) It is not necessary to the creation of an express warranty that formal words such as "warrant" or "guarantee" be used, but if such words are used then an express warranty is created. An affirmation merely of the value of the goods or a statement purporting to be merely an opinion or commendation of the goods does not create a warranty.</li> <li>(c) Statements or representations such as expressions of general policy concerning customer satisfaction which are not subject to any limitation do not create an express warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
Colorado	Colo. Rev. Stat. § 4-2- 313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>
Delaware	5A Del. C. § 2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he or she have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
Iowa	I.C.A. § 554.2313	1. Express warranties by the seller are created as follows: a. Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise. b. Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description. c. Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model. 2. It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that the seller have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.
Kansas	K.S.A. § 84- 2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty	Warranty Language
	Authorities	
Maine	11 M.R.S.A. § 2-313	<ol> <li>(1). Express warranties by the seller are created as follows:</li> <li>(a). Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b). Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description. In the case of consumer goods sold by a merchant with respect to such goods, the description affirms that the goods are fit for the ordinary purposes for which such goods are used.</li> <li>(c). Any sample or model which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the sample or model.</li> <li>(2). It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ol>
Minnesota	M.S.A. § 336.2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that the seller have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
Missouri	Mo. Rev. Stat. § 400.2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>
Nebraska	Neb. U.C.C. §2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
New Hampshire	N.H. Rev. Stat. Ann. §382-A:2- 313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>
New Jersey	N.J.S.A. § 12A:2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
New York	N.Y. U.C.C. § 2-313	<ul> <li>(1) Express warranties by the sellerare created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goodsand becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goodswhich is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goodsor a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>
North Carolina	N.C.G.S. §25-2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
Ohio	O.R.C.A. §1302.26	<ul> <li>(A) Express warranties by the seller are created as follows:</li> <li>(1) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(2) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(3) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(B) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>
Oklahoma	Okla. Stat. Ann. Tit. 12A §12A- 2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the sellerto the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
Oregon	Warranty Authorities O.R.S. §72.3130	(1) Express warranties by the seller are created as follows:  (a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.  (b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.  (c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.  (2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that the seller have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.
Pennsylvania	Pa. C.S.A § 2313	(a) General ruleExpress warranties by the seller are created as follows:  (1) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.  (2) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.  (3) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.  (b) Formal words or specific intent unnecessaryIt is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the opinion of the seller or commendation of the goods does not create a warranty.

State	Warranty Authorities	Warranty Language
Texas	Tex. Bus. & Com. Code Ann. §2.313	<ul> <li>(a) Express warranties by the seller are created as follows:</li> <li>(1) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(2) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(3) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(b) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>
Utah	U.C.A. § 70A-2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
Vermont	Vt. Stat. Ann. Tit. 9A § 2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>
Virginia	Va. Code § 8.2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
Washington	R.C.W. § 62A.2-313	(1) Express warranties by the seller are created as follows: (a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise. (b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description. (c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model. (2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he or she have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.
West Virginia	W. Va. Code § 46-2-313	<ul> <li>(1) Express warranties by the seller are created as follows:</li> <li>(a) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise.</li> <li>(b) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description.</li> <li>(c) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.</li> <li>(2) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.</li> </ul>

State	Warranty Authorities	Warranty Language
State Wyoming	Warranty Authorities Wyo. Stat. §34.1-2-313	(a) Express warranties by the seller are created as follows:  (i) Any affirmation of fact or promise made by the seller to the buyer which relates to the goods and becomes part of the basis of the bargain creates an express warranty that the goods shall conform to the affirmation or promise;  (ii) Any description of the goods which is made part of the basis of the bargain creates an express warranty that the goods shall conform to the description;  (iii) Any sample or model which is made part of the basis of the bargain creates an express warranty that the whole of the goods shall conform to the sample or model.  (b) It is not necessary to the creation of an express warranty that the seller use formal words such as "warrant" or "guarantee" or that he have a specific intention to make a warranty, but an affirmation merely of the value of the goods or a statement purporting to be merely the seller's opinion or commendation of the goods does not create a warranty.

## EXPRESS WARRANTY MULTI-STATE CLASS STATE LAW REQUIREMENTS FOR PRIVITY

State	Privity Required?	
Alaska	<b>Privity is not required.</b> Privity of contract is not required in breach of warranty actions. <i>Universal Motors v. Waldock,</i> 719 P.2d 254, 256 n.2 (1986) (citing <i>Morrow v. New Moon Homes</i> , 548 P.2d 279, 288-89 (Alaska 1976)); <i>Shooshanian v. Wagner</i> , 672 P.2d 455, 461 (Alaska 1983).	
California	Privity is not required. Privity of contract is not required in actions based on express warranty. <i>Hauter v. Zogarts</i> , 14 Cal. 3d 104, 115 n.8; <i>Seely v. White Motor Co.</i> , 63 Cal. 2d 9 (1965).	
Colorado	<b>Privity is not required.</b> Privity of contract is not required in an express warranty claim. <i>Am. Safety Equip. Corp. v. Winkler</i> , 640 P.2d 216, 221 (Colo. 1982).	
Delaware	<b>Privity is not required.</b> Privity is not required in a breach of warranty action where plaintiff claims solely economic injury arising from an inherently defective product. <i>Pack &amp; Process</i> , 503 A.2d at 659-60; <i>see also S&amp;R Assocs., L.P., III v. Shell Oil Co.</i> , 725 A.2d 431, 437 (Del. 1998) (Delaware legislature abolished the privity requirement).	
Iowa	<b>Privity is not required.</b> "Courts allow a nonprivity buyer to recover for direct economic loss damages if the remote seller has breached an express warranty." <i>Beyond the Garden Gate v. Northstar Freeze-Dry Mfg.</i> , 526 N.W.2d 305, 309 (Iowa 1995).	
Kansas	<b>Privity is not required.</b> Privity between manufacturer and buyer is not required to recover for breach of warranty. <i>See</i> Kan. Stat. § 50-639(b) ("no action for breach of warranty with respect to property subject to a consumer transaction shall fail because of a lack of privity between the claimant and the party against whom the claim is made"); <i>Gonzalez v. Pepsico, Inc.</i> , 489 F. Supp. 2d 1233, 1246 (D. Kan. 2007) ("The Court finds that Section 50-639(b) of the KCPA has abolished any privity requirement in an action for breach of the implied warranty of merchantability involving a consumer transaction under Kansas law.").	
Maine	<b>Privity is not required.</b> "Lack of privity does not, in itself, foreclose assertion of a claim of breach of express warranty against a remote manufacturer." <i>Unicomp, Inc. v. Elementis Pigments, Inc.</i> , 1999 WL 1995400, at *17 (D. Me. 1999); <i>see also</i> 11 M.R.S. § 2-318 ("Lack of privity between plaintiff and defendant shall be no defense in any action brought against the manufacturer, seller or supplier of goods for breach of warranty, express or implied, although the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom	

the manufacturer, seller or supplier might have reasonably expected to use, consume or be affected by the goods.").  Minnesota  Privity is not required. Privity is not required to state a claim for breach of warranty. See Minn. Stat. § 336.2-318 ("A seller's warranty whether express or implied extends to any pers who may reasonably be expected to use, consume or be affected by the goods and who is injured by breach of the warranty. A seller may not exclude or limit the operation of this section."). As stated by the Supreme Court of Minnesota, "those who purchase, use, or otherwise acquire warranted goods have standing to sue for purely economic losses." Minnes Min. & Mfg. Co. v. Nishika Ltd., 565 N.W.2d 16, 21 (Minn. 1997).  Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused to breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied.").  With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 7	State	Privity Required?
Minnesota  Privity is not required. Privity is not required to state a claim for breach of warranty. See Minn. Stat. § 336.2-318 ("A seller's warranty whether express or implied extends to any pers who may reasonably be expected to use, consume or be affected by the goods and who is injured by breach of the warranty. A seller may not exclude or limit the operation of this section."). As stated by the Supreme Court of Minnesota, "those who purchase, use, or otherwise acquire warranted goods have standing to sue for purely economic losses." Minnesonal Min. & Mfg. Co. v. Nishika Ltd., 565 N.W.2d 16, 21 (Minn. 1997).  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action for or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the		
Minn. Stat. § 336.2-318 ("A seller's warranty whether express or implied extends to any pers who may reasonably be expected to use, consume or be affected by the goods and who is injured by breach of the warranty. A seller may not exclude or limit the operation of this section."). As stated by the Supreme Court of Minnesota, "those who purchase, use, or otherwise acquire warranted goods have standing to sue for purely economic losses." Minnes Min. & Mfg. Co. v. Nishika Ltd., 565 N.W.2d 16, 21 (Minn. 1997).  Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused be breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Nebraska  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier mi		· ·
who may reasonably be expected to use, consume or be affected by the goods and who is injured by breach of the warranty. A seller may not exclude or limit the operation of this section."). As stated by the Supreme Court of Minnesota, "those who purchase, use, or otherwise acquire warranted goods have standing to sue for purely economic losses." Minnes Min. & Mfg. Co. v. Nishika Ltd., 565 N.W.2d 16, 21 (Minn. 1997).  Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Nebraska  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defen	Minnesota	
injured by breach of the warranty. A seller may not exclude or limit the operation of this section."). As stated by the Supreme Court of Minnesota, "those who purchase, use, or otherwise acquire warranted goods have standing to sue for purely economic losses." Minnesota. Min. & Mfg. Co. v. Nishika Ltd., 565 N.W.2d 16, 21 (Minn. 1997).  Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused be breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Nebraska  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to recover damages for breach of warranty, express or implied, or for negligence, even though to recover damages for breach of warran		
section."). As stated by the Supreme Court of Minnesota, "those who purchase, use, or otherwise acquire warranted goods have standing to sue for purely economic losses." Minnesota. Min. & Mfg. Co. v. Nishika Ltd., 565 N.W.2d 16, 21 (Minn. 1997).  Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (In Ct. App. 1952) (holding representation made by a manufacturer on the packages of its detergory was a warranty to the ultimate consumer despite the absence of privity).  Nebraska  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied.").  With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall no be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
otherwise acquire warranted goods have standing to sue for purely economic losses." Minnes Min. & Mfg. Co. v. Nishika Ltd., 565 N.W.2d 16, 21 (Minn. 1997).  Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Nebraska  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to recover damages for breach of warranty, express or implied, or for negligence, even though to recover damages for breach of warranty, express or implied, or for negligence, even though to recover damages for breach of warranty, express or implied, or for negligence, even though to recover damages for breach of wa		
Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		· · · · · · · · · · · · · · · · · · ·
Missouri  Privity is not required. "[P]rivity of contract is not required to recover for injuries caused breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier or supplier might reasonably have expected to use, consume or be affect.		
breach of an express warranty." Whitman v. Consolidated Aluminum Corp., 637 S.W.2d 405 407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (I Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect		
407 (Mo. Ct. App. 1982) (noting "The label was obviously directed toward prospective purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (1 Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.	Missouri	
purchasers"); see also Worley v. Procter & Gamble Mfg. Co., 241 Mo. App. 1114, 1122 (1 Ct. App. 1952) (holding representation made by a manufacturer on the packages of its deterg was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
Ct. App. 1952) (holding representation made by a manufacturer on the packages of its detergous a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
was a warranty to the ultimate consumer despite the absence of privity).  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
Nebraska  Privity is not required. "Privity of contract has also been removed as a barrier to asserting express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." Peterson v. North American Plant Breeders, 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
express warranty claim based upon statements made in advertising and other printed matters prepared by the manufacturer." <i>Peterson v. North American Plant Breeders</i> , 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. <i>See Dalton v. Stanley Solar &amp; Stove, Inc.</i> , 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. <i>See Lempke v. Dagenais</i> , 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
prepared by the manufacturer." <i>Peterson v. North American Plant Breeders</i> , 218 Neb. 258, 2 (Neb. 1984).  Privity is not required. <i>See Dalton v. Stanley Solar &amp; Stove, Inc.</i> , 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. <i>See Lempke v. Dagenais</i> , 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.	Nebraska	·
New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
New Hampshire  Privity is not required. See Dalton v. Stanley Solar & Stove, Inc., 629 A.2d 794, 797 (N.H. 1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. See Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
1993) ("Lack of privity shall not be a defense in any action brought against the manufacturer seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. <i>See Lempke v. Dagenais</i> , 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect	N. II 1'	
seller or supplier of goods to recover damages for breach of warranty, express or implied."). With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. <i>See Lempke v. Dagenais</i> , 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.	New Hampshire	
With the enactment of RSA 382-A:2-318 (Supp.1992), the New Hampshire Legislature removed both horizontal and vertical privity as defenses to implied warranty claims. <i>See Lempke v. Dagenais</i> , 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
removed both horizontal and vertical privity as defenses to implied warranty claims. <i>See Lempke v. Dagenais</i> , 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect		
Lempke v. Dagenais, 130 N.H. 782, 788, 547 A.2d 290, 294 (1988). "Lack of privity shall not be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though the plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect."		, 11
be a defense in any action brought against the manufacturer, seller or supplier of goods to recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
recover damages for breach of warranty, express or implied, or for negligence, even though to plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affect.		
plaintiff did not purchase the goods from the defendant, if the plaintiff was a person whom the manufacturer, seller or supplier might reasonably have expected to use, consume or be affected.		
manufacturer, seller or supplier might reasonably have expected to use, consume or be affect		
	New Iersey	Privity is not required. See Dzielak v. Whirlpool Corp., 26 F. Supp. 3d 304 (D.N.J. June 16,
	11011 30150 9	2014) ("New Jersey law does not require direct privity to support an express warranty claim.").

State	Privity Required?		
New York	Privity is not required. See Randy Knitwear v. Am. Cyanamid Co., 11 N.Y.2d 5, 13 (1962);		
	Famular v. Whirlpool Corp., 2017 WL 280821, at *10 (S.D.N.Y. Jan. 19, 2017) ("New York		
	law does not require privity when a breach of express warranty is based on misrepresentations		
	contained in public advertising or sales literature."); Weisblum v. Prophase Labs, Inc., 88 F.		
	Supp. 3d 283, 295 (S.D.N.Y. 2015) (same).		
North Carolina	<b>Privity is not required.</b> "Privity is not required when the theory is breach of an express		
	warranty. The absence of contractual privity no longer bars a direct claim by an ultimate		
	purchaser against the manufacturer for breach of the manufacturer's express warranty which is		
	directed to the purchaser." Sharrard, McGee & Co., P.A. v. Suz's Software, Inc., 100 N.C. App.		
	428, 432 (N.C. Ct. App. 1990) (citations and alteration omitted).		
Ohio	<b>Privity is not required.</b> See Johnson v. Monsanto Co., 2002 WL 2030889, at *3 (Ohio Ct.		
	App. Sept. 6, 2002) (quoting C.W. Zumbiel Co. v. Reichhold Chems., Inc., 1996 WL 400501, at		
	*1 (Ohio Ct. App. June 5, 1996) (privity is not required "when a manufacturer has induced a		
	party, by way of express warranty, to purchase one of its products")).		
Oklahoma	<b>Privity is not required.</b> <i>Elden v. Simmons</i> , 631 P.2d 739, 742 (Okla. 1981) (eliminating privity		
	requirement and "allowing ultimate consumers to bring direct breach of warranty actions		
	against manufacturers of products which are allegedly defective").		
Oregon	<b>Privity is not required.</b> "Privity is not required to recover economic loss on an express		
	warranty." Dravo Equipment Co. v. German, 73 Ore. App. 165, 167 (Or. Ct. App. 1985);		
	Larrison v. Moving Floors, 127 Ore. App. 720, 724 (Or. Ct. App. 1994).		
Pennsylvania	<b>Privity is not required.</b> Pennsylvania courts "have consistently held that under the		
	Pennsylvania Commercial Code, privity of contract is not required between the party issuing a		
	warranty and the party seeking to enforce the warranty." Goodman v. PPG Indus., 2004 PA		
	Super 151, *15 n.6 (Pa. Super. Ct. 2004).		
Texas	<b>Privity is not required.</b> "As noted by the Texas Supreme Courtthe more recent trend among		
	the courts of appeals is not to require privity of contract for express warranty claims		
	generally The Court endorses the reasoning of the recent Texas appellate cases and holds		
	that no privity is necessary for an express warranty claim that arises from communications by		
	an identifiable person to the ultimate buyer." Berge Helene Ltd. v. GE Oil & Gas, Inc., 830		
	F.Supp.2d 235, 250-252 (S.D. Tex. 2011) (citing See PPG Indus., Inc. v. JMB/Houston Ctrs.		
	Partners Ltd., 146 S.W.3d 79, 88 (Tex. 2004)).		

State	Privity Required?		
Utah	<b>Privity is not required.</b> "The great weight of authority and the better view is that a consumer		
	can recover for breach of an express warranty despite a lack of privity." State by Division of		
	Consumer Protection v. GAF Corp., 760 P.2d 310, 314 (Utah 1988); see also Utah Code Ann. §		
	70A-2-318.		
Vermont	<b>Privity is not required.</b> "After a thorough review of the case law, the district court below		
	correctly concluded that the Vermont Supreme Court has dispensed with privity when personal		
	injury, property damage, or an express warranty made directly from the defendant to the		
	plaintiff is present." Vermont Plastics v. Brine, Inc., 79 F.3d 272, 280 (2d Cir. 1996) (citing		
	Gochey v. Bombardier, Inc., 153 Vt. 607, 572 A.2d 921, 924 (Vt. 1990)).		
Virginia	<b>Privity is not required.</b> See Fentress Families Trust v. Va. Elec. & Power Co., Nos. CL09-		
	710, CL09- 1914, 2010 WL 7765113, at *7 (Va. Cir. Ct. 2010 July 29, 2010) (quoting Virginia		
	Code § 8.2-318) ("[P]rivity is not required to bring a claim for breach of express warranty, so		
	long as 'the plaintiff was a person whom the manufacturer or seller might reasonably have		
	expected to use, consume, or be affected by the goods."). Privity with a manufacturer is not		
	required to recover for breach of implied or express warranty. Va. Code Ann. § 8.2-318 (2012).		
	"Lack of privity between plaintiff and defendant shall be no defense in any action brought		
	against the manufacturer or seller of goods to recover damages for breach of warranty, express		
	or implied, or for negligence, although the plaintiff did not purchase the goods from the		
	defendant, if the plaintiff was a person whom the manufacturer or seller might reasonably have		
	expected to use, consume, or be affected by the goods." Va. Code Ann. § 8.2-318 (2005).		
Washington	<b>Privity is not required.</b> Privity is not required for claims premised on advertising. <i>Urban</i>		
	Dev., Inc. v. Evergreen Bldg. Prods., LLC, 59 P.3d 112, 118 (Wash. App. 2003) (internal		
	quotation marks and citation omitted) ("Privity requirements are relaxed when a manufacturer		
	makes express representations in advertising. The plaintiff must be a party whom the defendant		
***	could expect to act upon the representation and must rely on it.").		
West Virginia	Privity is not required. See Hoffman v. Daimler Trucks N. Am., LLC, 940 F. Supp. 2d 347,		
	365 (W.D. Va. 2013) ("In the absence of any other clause in the limited warranty, that warranty		
	would extend to foreseeable users of the product despite the lack of privity between the user and		
	the original seller."). The requirement of privity of contract in an action for breach of an express		
	warranty has been abolished. <i>Dawson v. Canteen Corp.</i> , 158 W. Va. 516, (1975).		

#### Case 1:17-cv-05353-GBD Document 48 Filed 02/19/19 Page 147 of 156

State	Privity Required?		
Wyoming	<b>Privity is not required.</b> "[P]rivity is not required in an action by a remote purchaser against a		
	manufacturer based upon an express warranty." Western Equip. Co. v. Sheridan Iron Works,		
	605 P.2d 806, 808 (Wyo. 1980).		

## SEALED PURSUANT TO PROTECTIVE ORDER

Cutter Natural Insect Repellent Insect Repellent - Consumer Reports

### Announcing new benefits, useful tools, and valuable insights!

Choose the membership that's right for you. Start now







#### Cutter Natural Insect Repellent





PRICE **\$5.79** 

Pump spray. Active ingredients are: Geraniol 5%, Soybean oil 2%, Sodium Lauryl Sulfate 0.4%, Potassium Sorbate 0.1%.

#### Ratings

#### Scorecard

Туре	Pump Spray	
Active ingredients	Geraniol 5%, Soybean oil 2%, Sodium Lauryl Sulfate 0.4%, Potassium Sorbate 0.1%.	
Cost per oz. (\$)	0.67	
Protection against mosquitoes and ticks	<b>⊗</b> Poor	
Resists damage to materials	Nery Good	

#### **CRs Take**

Poor performance at repelling mosquitoes. Does not claim to protect against ticks. Sweet cake-mix-like aroma with floral and plastic notes. White when applied. Leaves a thin, dry coating.

2/20/2018

Cutter Natural Insect Repellent Insect Repellent - Consumer Reports

#### About

The Cutter Natural Insect Repellent is part of the Insect repellent test program at Consumer Reports. In our lab tests, Insect repellent models like the Natural Insect Repellent are rated on multiple criteria, such as those listed below.

Protection against mosquitoes and ticks: Each product is tested to see how effectively it protects against Aedes mosquitoes (the aggressive mosquitoes that tend to bite during the day and can spread Zika) and Culex mosquitoes (nighttime biters that can spread West Nile). Based on our past testing, and on advice from independent experts, products that are effective against mosquitoes should be effective against other arthropods, including deer ticks.

Resists damage to materials: We test repellents on several common materials. Those scoring higher are less likely to cause damage. If you are concerned about damage, test first on an inconspicuous spot.

#### **Price & Shop**

SELLER	BUY FROM	AVAILABILITY
Amazon	\$5.79	In stock

Provided by eBay Commerce Network and Amazon, Consumer Reports Price & Shop makes it easy to find the right product from a variety of online retailers. Price & Shop is unbiased; retailers cannot influence placement. Clicking "Shop" will take you to the retailer's website to shop for this product. Please note that Consumer Reports collects fees from both eBay Commerce Network and Amazon for referring users. We use 100% of these fees to support our nonprofit mission.

Consumer Reports is an independent, non-profit organization dedicated to helping consumers. We do not accept advertising.





# Exhibit 23 has been produced to the Court via flashdrive

## SEALED PURSUANT TO PROTECTIVE ORDER